PREFACE.

The publication of the present volume has well-nigh brought to close that part of the Rasa-Vidya (or the science of the minerals in all their aspects, viz, medicinal, alchemical, and industrial) which should be considered to be an introduction to the study of a pharmacopœa of drugs prepared mainly from minerals—a pharmacopœa of a colossal magnitude, prepared, in pre-historic times, by the ancient Indians Much of the materials, originally intended to be dealt with in the first three volumes, are left out for treatment in a subsequent volume The fourth and a few of the succeeding volumes would be mainly devoted to the study of recipes most of whom would be found to be astonishingly infallible

It is not possible for me to make my readers realise the nature of the labour which I, a busy medical practitioner, have been undergoing in carrying on a prolonged research on a highly abstruse and almost forgotten science, without any assistance, financial or otherwise, either from the state or from any body else.

The sympathy with which the lovers of culture all over the world have been viewing the present publication has been the main force which has hitherto enabled me to sustain my energy and to hope for a completion of the work put in hand.

It is gratifying to note that my works are already

RASA-JALA-NIDHI

OR

OCEAN OF INDIAN CHEMISTRY, MEDICINE & ALCHEMY.

VOL. III

COMPILED IN SANSKRIT

BY

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being studied by almost all the eminent Ayurvedic physicians all over India, but the majority of the students of Ayurveda in the colleges have not yet had an opportunity to acquaint themselves with the contents of these books (which cover the greater and the better part of Ayurveda) much of which was hitherto unknown to the world. I know that there is a paucity of teachers who can efficiently teach this the most important branch of Ayurvedic studies, but I am confident that a gradual spread of the knowledge contained in the present publication will go a great way in removing this paucity at a near future.

I am thankful to Prof Berthold Laufer of the Field Museum of National History, Chikago, and some other scholars for their suggestion to adopt the commonly accepted practice of transliteration of Sanskrit names into Roman characters. I have decided to act up to their suggestion from Vol. IV, which has already been sent to the press.

There are scholars who are more interested in the history of a science than in the science itself. For the satisfaction of such scholars, I have dealt briefly with the history of Hindu chemistry in a chapter in my newly published work, entitled "Indian Civilization and its Antiquity" (Price Rs. 2-India).

I cannot conclude the present volume without a reference to the encouragement which I have received from men of eminence connected with the spread of Ayurvedic education in this country, and especially from the Hon'ble Mr. Justice Manmatha Nath Mookerji of the Calcutta High Court (President,

Astanga Ayurved College, Calcutta) and from the late Mr. Justice Gokarna Nath Misra of Lucknow.

I am also thankful to Mr. H. E. Stapleton, M.A., I.E S., Director of Public Instruction, Bengal, for his kindly taking an interest in my publications.

I am much obliged to Professors Satkari Mookerji, M A , and Kshitish Chandra Chatterji, M.A., (both belonging to the Department of Post Graduate classes in Sanskrit, Calcutta University) for the help they have ungrudgingly rendered to me in correcting the proof sheets and for several suggestions received from them.

The keenness of interest with which the publication of the present volume has all along been watched by Kaviraj Jatindranath Ghosal Kaviratna, Kaviraj Birindra Mohun Chand Ray B A., Sj. Debi Charan Ghosal, and some other pupils of mine needs a special mention.

41-A, Grey Street,
Calcutta.
The 27th December, 1929.

BHUDEB MOOKERJI.

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(१)

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काम्ये नित्यं मयि चिरतुष्टे ।
लीलाशीले तव भतेजो ॥
तु प्रीते निखिलवरे ये ॥

(२)

बा । सति तुदते
बध्नातीशे चिरकांक्षा ।
पृथ्वीकारास्थित तशीर्षे ।
शीर्धारा तव विनिषिञ्च ॥

(३)

विश्वे विश्वे षि णी
प्रोद्गीतास्तु श्रवणपिपासा ।
धीराणां शाम्य र्य्यं
प्रवितर क्तिम् ॥

(४)

जीवानां त्वं भवलयदात्री
देवानां ं चिरशरणं हि ।
मायातीते मम हृदि तिष्ठ
ं नातस्त्रिभुवनधात्रि ॥

प्रथमोऽध्यायः ।

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नामानि ।

लौहोऽस्त्री ं तीक्ष्ण ं पिण्डमयः क ् ।
कृषिलोहं ि।लात्मजमायस पि कथ्यते ॥

गुणाः ।

(१)

मधुरं वरं तिक्तं लौहं शीतं सरं गुरु ।
रुक्षं ं ्चक्षुष्यं लेखनं वा ं हि तत् ॥
ं पित्तं गरं शूलं शोथ ं:प्ली ु ः ।
मेदोमेहक्रिमीन् हन्ति सेवनात् तद् यथाविधि ॥

(२)

आयुः प्रदाता बलवीर्यकर्त्ता रोगापहर्त्ता मदनस्यधाता ।
यः:स नं नहि किञ्चिदस्ति र ं ं ं
ाम् ॥

Chapter I.

LAUHA (IRON)

Properties of lauha

(1)

Iron is sweet, astringent, and bitter in taste; cold, laxative; heavy; coarse; preventer of senile-decay; improver of eye sight; reducer of fat; and increaser of a little of vayu (wind) in the system It pacifies an excess of kapha (phlegm) and pittam (animal heat); and cures toxin, colic, swelling of the body, piles, spleen, anemæa, obesity, spermatorrhœa and worms.

(2)

Iron increases strength and longevity. It cures diseases and is an aphrodisiac It is one of the best remedies for senility.

लौहस्य विकदोषाः ।

गुरुता क्लेदः श्मलं दाहकारिता ।
श्मदोषो मलग्रहो दोषाः तु ॥
शोधितव्यमतस्तद्धि मारणीयं यथाविधि ।
अशोधितममारितं लौहं ज्ञेयं महाविषम् ॥

Natural blemishes of iron

The following are the seven blemishes of iron :—heaviness, hardness, mixture with foreign matters,

power of causing hysteria, power of causing inflammation, evil characteristics of stone, and power of causing constipation.

दुष्टलौहसेवनस्य फलम् ।

षण्डत्वकुष्ठामयमृत्युदं भवेद् हृद्रोगशूलौ
कुरुतेऽश्मरीञ्च ।
नानारुजानाञ्च तथा प्रकोपं करोति हृल्लास
मवैधलौहम् ॥

Evil effects of taking impure iron.

Iron, not properly purified and incinerated, gives rise to the following :—impotency, leprosy, death, heart disease, colic, stone disease, hiccough, and even augmentation of many of the diseases the patient has already been suffering from.

लौहस्य प्रकाराः ।

(१)

सामान्याद् द्विगुणं क्रौञ्चं कालिङ्गोष्टगुणःस्मृतः ।
कालिङ्गाद् दशधा भद्रं भद्राद् वज्रं सहस्रधा ॥
वज्राच्छतगुणं पाण्ड्य नीरवं दशभिर्गुणैः ।
तस्मात् सहस्रगुणितमयः कान्तं महागुणम् ॥*

Varieties of iron.

Iron is of the following different kinds :

* पाठोऽयं रसेन्द्रचिन्तामणेस्तथा रामराजीयादुद्धृतः ॥

(*a*) Samanya or ordinary, (*b*) Krauncha (*c*) Kalinga (*d*) Bhadra (*e*) Vajra (*f*) Pandi (*g*) Niraba, and (*h*) Kanta.

Of these, (*b*) is twice as efficacious as (*a*); (*c*) is eight times as efficacious as (*a*); (*d*) is ten times as efficacious as (*c*); (*e*) is thousand times as efficacious as (*d*); (*f*) is hundred times as efficacious as (*e*); (*g*) is ten times as efficacious as (*f*); and (*h*) is thousand times as efficacious as (*g*). *

(२)

मुण्डं तीक्ष्णं तथा कान्तं त्रिविधं लौहमुच्यते ।
मुण्डात् तीक्ष्णं ततः कान्तं प्रशस्तं ज्ञायते बुधैः ॥

---

* This classification was in vogue at the time of King Rama Chandra, the hero of Ramayana. The present day Indians are unable to identify these different kinds of iron. Such ancient chemists as Nityanatha, Bagbhat, etc. were also ignorant of this classification. This is due to an incredibly great decline in our knowledge of industrial chemistry since the time of the great Rama Chandra. That the ancient Indians attained a high degree of scientific knowledge is evident from the famous iron pillar of Delhi, which, according to the inscription, was erected as a monument by King Chandra who was most probably the founder of the Chandra dynasty (wrongly translated as "Lunar Dynasty") This huge pillar has been exposed, for several thousands of years, to the roughness and extreme variations of a tropical climate, but no rust has grown on its amazingly smooth and glossy surface. The same remarks apply to the cannons lying in Visnupur (Bengal) and to the iron beams used in the famous temple (now in ruins) of Konarka in Orissa.

It is a matter of wonder and great significance that the ancient Hindus were able, long, long before the birth of Christ, to forge such huge pillars and beams; and to prepare a kind of iron the like of which modern scientists have not yet been able to produce. It is a sheer want of encouragement that accounts for the present state of deplorable forgetfulness in this direction.

(2)

Iron is of three different kinds, viz. (a) Mund… (b) Tikshna, and (c) Kanta The second is better … the first and the third is better than the second

(क) मुण्डम् (पूतिलौहम्) ।

मृदु कुण्ठं कड़ारञ्च त्रिविधं मुण्डमुच्यते ।
द्रुतद्रावमविस्फोटं चिक्कणं मृदु तच्छुभम् ॥
हतं यत् प्रसरेद् दुः त् तत् कुण्ठं मध्यमं स्मृत
यद्धतं भज्यते कृष्णं हीनं कड़ारकम् ॥

(a) Munda or ordinary iron

Munda or ordinary iron is of three different ki… viz mridu (soft), kuntha (obdurate), and ka… (brittle)

Mridu or soft is that which melts quickly and … a smooth and glossy surface.

Kuntha or obdurate is that which can be expa… ed with much difficulty by hammering

Karara or brittle iron is that which breaks eas… when hammered, and presents black surfaces w… broken

Of these three, the first is comparatively co… mendable, the second is of moderate efficacy, and … third is the least efficacious for medicinal purposes

श्रेष्ठमुण्डस्य गुणाः ।

मुण्डं परं मृदुलकं कफवातशूल
मूलाममेहगदकामलपाण्डुहारि ।
गुल्मामवातजठरार्त्तिहरं प्रदीपि
शोफापहं रुधिरकृत् खलु कोष्ठशोधि ॥

Properties of excellent Munda iron

Soft iron of superior qualities (duly incinerated) is efficacious in the following diseases —excess of kapha (phlegm), colic due to excess of vayu (wind), piles, dysentery, spermatorrhœa, jaundice, anemia, gulma, rheumatism, diseases affecting the belly, and dropsy It increases blood, and appetite, and purifies the stomach

(ख) तीक्ष्णम् ।

खरं सारञ्च हृन्नालं तारापट्टञ्च वज्रकम् ।
काललौहाभिधानञ्च षड़्विधं तीक्ष्णमुच्यते ॥

(b) Tikshna iron

There are six different kinds of tikshna iron, viz. (1) khara (2) sara, (3) hrinnala (4) tarapatta (5) bajraka and (6) kala *

* Import of cheaper iron products from foreign countries has led to the total ruin of iron industry of an indigenous character in India The last generation of iron smiths who were acquainted with the different kinds of iron, as described here, became totally extinct about 50 years back The classification, as given here, has therefore nothing but a historical interest for us.

(4) Tarapatta iron.

Tarapatta iron is obtained from iron ores by class of smiths who are specialists in the science c ores. This iron is black, smooth, glazy, and has ver fine pogara (carved lines) on its surface This is pre pared in the shape of a spoon (minus the handle) I is a kind of iron which never rusts, even if it is ex posed to the sun, rains, and wind. *

(५) वज्रलौहम् ।

पोगरैर्वज्रसंकाशैः सूक्ष्मरेखैश्च सान्द्रकैः ।
निचितं श्यामलाङ्गञ्च वज्रकं तत् प्रकीर्त्तितम् ॥

(5) Bajra iron.

Bajra iron is that which has got on its surface plenty of fine and deep-seated lines—straight and carved (pogara)— of the appearance of an electric flash (bajra), and is of a glossy black colour.

(६) काललौहम् ।

नीलकृष्णप्रभं न्द्रं मसृणं गुरु भासुरम् ।
लौहघातेऽप्यभङ्गात्मधारं का सं म् ॥

---

* This is most probably the iron out of which the wonderful iron pillar of Delhi, the iron beams in the ruins of konarka temple, the cannons in visnupur etc were prepared The art of preparing such iron is now hopelessly lost

(6) ala or Black iron.

Kala iron is heavy and of a deep blue-black colour Its surface is glossy, heavy, and bright. It can not be broken inte pieces by being hammered upon by means of another piece of iron

तीक्ष्णलौहस्य गुणाः ।

(१)

रुक्षं स्यात् खरलौहकं सुमधुरं पाकेऽथ वीर्य्येहिमं
तिक्तोष्णं कफपि कुष्ठजठरप्लीहामपाण्डूर्त्तिनुत् ।
: शूलयकृद्गदक्षयजरामेहामवातापहं
दीप्तं चातिरसायनं करं दुर्णामदा पहम् ॥
गौ त् परं सर्व्वमेकै माद् गुणोत्तरम् ॥

Properties of tikshna iron.

(1)

Khara iron is coarse and warm in touch, bitter in taste, but it turns sweet, when digested in the stomach. It produces a cooling effect upon the system. It is efficacious in the following diseases —excess of kapha and pittam, leprosy, udara-roga, enlargement of the spleen, mucus, jaundice, colic, derangement of the liver, wasting diseases, senility, spermatorrhœa, inflammation, and rheumatism. It increases strength and appetite and prevents and cures senile decay, if taken in the manner prescribed hereafter. Each of the varieties of iron named after " khara " is superior in quality to that which precedes it.

(२)

लौहं साराह्वयं हन्याद् ग्रहणीमतिसारकम् ।
अर्द्ध सर्व्वाङ्गजं वातं शूलञ्च परिणामजम् ।
छर्द्दिं च पीनसं पित्तं श्वासं सं व्यपोहति ॥

(2)

Sara iron cures the following diseases, if taken in the prescribed way —diarrhœa, both chronic and acute, paralysis affecting the whole or half of the body, colic felt at the time of digesting food, nausea, pinasa, diseases due to an excess of pittam, asthma and cough

(ग) कान्तलौहम् ।

तस्य लक्षणम् ।

(१)

पात्रे यस्मिन् रति जले बिन्दुर्नति *
गन्धं हिंगु त्यजति च तथा तिक्ततां निम लकः ।
पाके दुग्धं व्रजति शिखराकारतां नैति भूमिं
कृष्णाङ्गः स्यात् सजलचणकः का गौहं तदुक्तम् ॥

(c) Kanta iron (an oxide of iron having the magnetic power of attracting iron)

---

* न लिप्तमित्यस्य स्थले इत्येतत् पाठान्तरं दृश्यते ।

** निम्बकल्कः इत्येतस्य स्थले नि : इत्येतत् न्तरं दृश्यते ।

Its characteristics

(1)

Kanta iron is of such a nature that a drop of oil thrown into water contained in a pot of this iron does not spread over the surface of the water , neither does the oil stick to the inner surface of the pot Hingu (asafœtida) kept in a pot of this iron loses its smell in course of time Bark of nimba tree (which is very bitter in taste), pestled with water, loses its bitterness, if kept for some time in a pot of this iron. Milk, boiled in a pot of this iron, may swell up, but will not overflow the borders of the pot, and will not flow into the ground

(२)

कान्तं मृदुतरं द्रु रुच्चात्म तिमिराकरम् ।
[illegible]दुर्य्यतो भवेन् निम्बकल्को रात्रिनिर्वो तः ।
पानीयं क्वथितं चास्मिन् हिंगुगन्धसमं भवेत् ॥
कान्तं तदुत्तमं रूप्येनावर्त्तितं मिलेत् ।
सर्व्वरोगहरं ह्येतत् सर्व्वकुष्ठहरं परम् ॥

(2)

Kanta iron is softer than silver It is coarse and black in colour. Water boiled in a pot of kanta iron acquires the smell of hingu (asafœtida) Kanta iron of superior quality is generally found to be in the form of ores covered with silver. Such a kanta iron (*i.e.* kanta iron found in ores rolled in silver) can

cure all sorts of diseases, if applied in the prescribed way, including all sorts of leprosy

(२)

यत् पात्राध्युषिते तोये तैलबिन्दु नं ति ।
नारेणावर्त्तते यत् ौहमिति स्मृतम् ॥*

(3)

Kanta iron is that which is found to be mixed with silver

कान्तलौहस्य भेदाः ।

भ्रामकं चुम्बकं चैव कं द्रावकं तथा ।
एवं चतुर्विधं कान्तं रोम न्तश्च प म् ॥
एकद्वित्रिचतुस्पञ्च सर्व्वतोमुखमेव तत् ।
पीतं कृष्णं त रक्तं त्रिवर्णं ात् क् पृथक् ॥
स्पर्शवेधि भवेत् पीतं कृष्णं श्रेष्ठं रसाय ।
रक्तवर्णं तथा वाऽपि रसबन्धे प्रशस्यते ॥
भ्रामयेल्लौ जातं तु न्तं ।
चुम्बकं कान्तं कर्ष त् कं त ॥

* "कान्तलौहमिति" स्मृतम् स्थले "कान्तलौहं शुभं स्मृतम्" इत्येतत् पाठान्तरं दृश्यते ।

साक्षाद् यद् द्रावयेल् लौहं तत् कान्तं द्रावकं भवेत्।
तद् रोमकान्तं स्फुटिताद् यतो रोमोद्गमो भवेत्॥
भ्रामकं तु कनिष्ठं स्याच् चुम्बकं मध्यमं तथा।
उत्तमं कर्षकं चैव द्रावकम् चोत्तमोत्तमम्॥
कनिष्ठं स्यादेकमुखं मध्यं द्वित्रिमुखं भवेत्।
चतुस्पञ्चमुखं श्रेष्ठमुत्तमं सर्व्वतोमुखम्॥

Varieties of kanta iron

Kanta iron is of five different kinds, viz. bhramaka, chumbaka, karshaka, dravaka, and romakanta. They may have one, two, three, four, five or more than five mouths or points. They may be of three different colours, viz. yellow, black, and red. Of these the yellow variety (populary called the philosopher's stone) can transform base metals by mere touch.* The black variety is commendable in medicines and the red variety in medicines as well as in the act of solidification of mercury.

Bhramaka iron is that which makes a piece of ordinary iron revolve round it. Chumbaka kanta (load stone) is that which can cling to pieces of ordinary iron. Karshaka kanta is that which can attract to it pieces of ordinary iron. Dravaka kanta is that at the touch of which ordinary iron melts (without any heat being applied). Roma-kanta is that which causes the growth of fresh hair at that part of the skin which is lightly pierced through by it.

* It is an ore found in nature and is therefore to be distinguished from a kind of Philosopher's stone that can be prepared (vide page 245, Vol. I.)

Of these four varieties, Bhramaka is the least efficacious Chumbaka is superior to Bhramaka Karshaka is superior to Chumbaka, and Dravaka is the most efficacious of all these varieties

The kanta iron which has got only one mouth (or magnetic point) is the least efficacious ; that with two or three mouths is of moderate efficacy ; and that with four or five mouths is excellent The kanta iron which has got several mouths is the best of all

कादीनां विशेषगुणाः ।

भ्रा कं व्याधिनाशे प्रशस्यते ।
रसे रसायने चैव कं वकं हितम् ॥
मदो जः सूतः कुशमुच्यते ।
निगर्भाद् ग्रहीतव्यं तत् न धीमता ।
मारुतातपवि स संशयः ॥

Special features of Bhramka, etc

Kanta iron of the name of Bhramaka and Chumbaka are commendable for use in medicines intended for cure of diseases Karshaka and Dravaka are commendable for use in mercurial operations and in medicines intended for cure of diseases as well as for prevention and cure of senile decay Mercury can be compared to a wild elephant, whereas kanta iron to a goad which serves to control its wildness.

Kanta iron is to be obtained direct from mines The kanta iron which has been kept exposed to sun and air should be avoided in medicines.

कान्तलौहस्य गुणाः।

कान्तायोऽतिरसायनोत्तरतरं स्वस्थे चिरायुःप्रदं
स्निग्धं मेहहरं त्रिदोषशमनं शूलाममूलापहम्।
गुल्मप्लीहयकृत्क्षयामयहरं पाण्डूदरव्याधिनुत्
तिक्तोष्णं हिमवीर्य्यकं किमपरं योगेन सर्व्वार्त्तिनुत्॥

Properties of kanta.

Kanta iron is bitter in taste, warm in touch, but produces a cooling effect in the system. It is a good rasayanam (*i.e* a medicine which, if used in the prescribed manner, can prevent and cure diseases and senility). It imparts long life to a healthy man (who takes it regularly) It is soothing. If taken with suitable anupanam, it can cure all the diseases, especially, spermatorrhœa, colic, dysentery, excess of the three doshas, piles, fistula, gulma, enlargement of the spleen and liver, phthisis, jaundice, and udara-roga

लौहस्य शोधनम्।*

प्रथमोविधिः।

पत्तलीकृतपत्राणि लौहस्याग्नौ प्रतापयेत्।
निषिञ्चेत् तप्ततप्तानि तैले तक्रे च कांजिके॥
गोमूत्रे च कुलत्थानां कषाये च त्रिधा त्रिधा।
एवं लौहस्य पत्राणां विशुद्धिः संप्रजायते॥

Purification of iron **

* शोधनार्थं पत्तलीकृतं लौहपत्रमेव सर्व्वदा व्यवहार्य्यम्।

** Iron is first of all, to be heated and hammered into thin leaves before it is purified

First process

See Second process, page 242, vol II)

द्वितीयोविधिः।

शशास्रतजसंमिश्रं त्रिवारं परितापितम्।
मुण्डादिसकलं लौहं सर्व्वदोषान् विमुञ्चति॥

Second process

All sorts of iron leaves are purified (medicinally, of course), if they are heated three times and immersed each time in the blood of hare

तृतीयोविधिः।

तप्तं क्षाराम्लसंलिप्तं शशरक्तेन वापितम्।
कान्तलौहं भवेच्छुद्धं सर्व्वदोषविवर्ज्जितम्॥

Third process.

Kanta iron is purified, if it is heated after having been smeared with ksharas and amlas, and then immersed in the blood of hare.

चतुर्थोविधिः।

क्वाथ्यमष्टगुणे तोये त्रिफला षोड़शं पलम्।
तत्क्काथे पादशेषे तु लौहस्य प ञ्चकम्॥
कृत्वा पत्राणि नि सप्तवारं निषेचयेत्।
एवं प्रलीयते दोषो गिरिजो लौह वः॥

Fourth process

Sixteen palas of triphala are to be boiled with 128 palas of water until it is reduced to 32 palas Five palas of iron leaves are to be heated seven times and immersed each time into this water. This results in the purification of the iron

पञ्चमोविधिः ।

सामुद्रलवणोपेतं   निर्वापितं खलु ।
त्रि   थिते नूनं गिरिदोषमयस्त्यजेत् ॥

Fifth process.

Iron leaf is purified, if it is coated with a dense solution of sea salt, then heated, and cooled next by immersion into a decoction of triphala

षष्ठसप्तमौ विधी ।

चि   फलदल   थादयो दोषमुदस्यति ।
यद्वा फलत्रयोपेतं गोमूत्रे क्वथितं क्षणम् ॥

Sixth and Seventh processes

Iron is purified, if it is boiled with decoction of leaves or fruits of tamarind.

It may also be purified, if it is boiled for some time with decoction of triphala, prepared with cow's urine (and not water).

अष्टमोविधिः।

द्वितीयखण्डे २४२ पृष्ठे तृतीयोविधि द्रष्टव्यः।

Eighth process.

(See Process No. 3, page 242, Vol, II)

नवमोविधिः।

लवनानि क्षारौ शोभाञ्जनरसे क्षिपेत्।
अम्लवर्गयुतेनादौ दिनं घर्मे विभावयेत्॥
तद्द्रवैर्दोलिकायन्त्रे दिवसं पाचयेत् धीः।
कान्तपाषाणशुद्धौ हि तदेव मारयेत् :॥

NINTH PROCESS.

A solution is to be made of the five salts, the two ksharas, the juice of shobhanjana, and the amla-varga.* This is to be exposed to the heat of the sun for one day. Kanta iron is purified, if it is boiled for one day by means of a Dola-Jantram containing this solution

लौहस्य मारणम्।

सर्व्वेषां धातुकल्पानां लौहकल्पं प्रशस्यते।
तस्मात् ० न लौहमादौ विमारयेत्॥

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* For amla varga, see page 301, Vol I.

Details of salts and ksharas will be given later in the present volume

नायः पचेत् पञ्चपलादर्वागूर्द्ध त्रयोदशात् ।
आदौ मन्त्रस्ततः कर्म्म कर्त्तव्यं मन्त्र उच्यते ॥
ओं मृतोद्भवाय स्वाहेत्यनेन लौहमारणम् ॥

ओं अमृतोद्भवोद्भवाय स्वाहा । इति मर्द्दनमन्त्रः ।
ओं अमृतोद्भवाय हं स्वाहा । ओं अमृते हुं फट् ।
ओं वज्रपानये महायक्षा धिपतये हुं । सुरासुर यक्षमहाविद्यावलाय स्वाहा । ओं अमृते हुं इति वलिदानमन्त्रः ।

Incineration of Iron

Medicines, in which iron is the leading ingredient, are better than those in which any other of the remaining metals (except mercury) forms the main ingredient. Iron is therefore to be incinerated very carefully.

Iron is not to be incinerated in quantities less than five palas and more than thirteen palas at a time. The following mantra (sacred text) is to be uttered just before the commencement of the process, leading to the incineration of iron —

" Om amritodbhavaya Swāhā" etc.

लौहमारणस्य प्रथमोविधिः ।

सूतकाद्द्विगुणं गन्धं दत्वा र्य्याच्च कज्ज िम् ।
द्वयोः समं लौहचूर्णं मर्दयेत् काद्रवैः ॥
यामद्वयं :पिण्डं कृत्वा त य पात्रके ।
धृत्वा रुवू पत्रैराच्छादयेद् बुधः ॥

यामद्वयाद् भवेदुष्णां धान्यराशौ न्यसेत् ततः ।
दत्त्वोपरि शरावं तु त्रिदिनान्ते समुद्धरेत् ।
पिष्ट्वा च गालयेद् व देवं वारितरं भवेत् ॥
कान्तं तीक्ष्णञ्च मुण्डञ्च निरुत्थं जायते ध्रुवम् ।
स्वर्णादीन् मारयेदेवं चूर्णं कृत्वा च लौहवत् ॥
सत्योऽनुभूतो योगीन्द्रैः क्रमोऽयं लोहमारणे ।
कथितं रामराजेन साकेतेशेन धीमता ॥
कौतूहलधिया येन शिक्षिता दण्डके पुरा ।
सिद्धयोगिमहर्षिभ्यो विद्यैषा रससंज्ञका ॥

Incineration of iron.

First process

See fourth process, page 247, Vol II.

द्वितीयोविधिः ।

तसूतस्य पादेन प्रलिप्तानि पुटानले ।
पचेत् तुल्येन वा ताप्यगन्धाश्महरतेजसा ॥

Second process.

Iron is incinerated by being rubbed with one fourth its quantity of incinerated mercury, and subjected to putam. It may also be incinerated, if rubbed with an equal quantity of swarnamakshika, gandhaka, and mercury, all combined, and then subjected to putam

तृतीयोविधिः ।

तीक्ष्णलौहस्य ानि निर्दलानि दृढेऽनले ।
ध्मा क्षिपेज्जले सद्यः पाषानोलुखलोदरे ॥
खण्डयेद्गाढ़निर्घातैः स्थूलया लौहपारया ।
तन्मध्ये स्थूलखण्डानि रुद्धा मल्लद्वयान्तरे ॥
ध्मात्वा क्षिप्त्वा जले सम्यक् पूर्व्ववत् कण्डयेत् ।
णं सूतगन्धाभ्यां पुटेद्विंशति ारकम् ॥
पुटे पुटे विधातव्यं पेषनं दृढ़वत्तरम् ।
एवं भ ीकृतं लौहं तत्तद्रोगेषु योजयेत् ॥

Third process.

Tikshna iron is to be hammered into fine sheets, devoid of layers. These are to be heated red hot and immersed into water They are then to be reduced to powder by means of an iron bar in a stone mortar Portions of the sheets, too hard to be powdered, are to be confined within two earthen basins, subjected to strong heat, and then immersed into water. When cooled, they are to be reduced to powder, being hammered in the aforesaid way. The powder, thus obtained, is to be rubbed with mercury and sulphur, and subjected to putam for twenty times. Rubbing very steadily is to be resorted to, previous to each act of putam (Juice of kanya or lemon juice or kanji may be used for the purpose of rubbing in this case)

चतुर्थोविधिः ।

हिंगुलस्य पलान् पञ्च नारीस्तन्येन ` येत् ।
तेन लौहस्य पत्राणि लेपयेत् पञ्चकम् ॥
रुद्ध्वा गजपुटे पचेत् कषा` ` `: पुनः ।
जम्बीरैरारणालैर्वा विंशत्यंशेन हिंगुलम् ॥
पिष्ट्वा रुद्ध्वा पचेल्लौहं तद्द्रवैः पा `त् पुनः ।
चत्वारिंशत् पुटैरेवं न्तं तीक्ष्णं च मुण्डकम् ।
म्रियते नात्र सन्देहो दत्वा दत्` हिंगुलम् ॥
अथ पूर्व्वोदितं तीक्ष्णं वसुभल्ल सयोः ।
पुटितं पत्रतोयेन त्रिंशद्वारैः :।
शोणितं जायते भस्म कृतसिन्दूरविभ्रमम् ॥

Fourth process.

Twenty tolas of fine iron sheets are to be smeared with an equal quantity of hingula, previously rubbed with human milk, and then subjected to gajaputam The iron is then to be subjected to forty more acts of putam, previously rubbed each time with one tola of hingulam mixed with the following alternately .—(1) decoction of triphala and (2) lemon juice or aranala The iron, thus incinerated, is again to be subjected to thirty more acts of putam, having been rubbed each time with one tola of hingula mixed with the juice of white punarnava and basaka. The iron thus grows as red as red vermilion.

पञ्चमोविधिः ।

अहिमाराहिद्मनीव सावज्रलतार्जुनैः ।
ह.ास्तन्ये हिंगुलेनायः पत्रेल्लिप्त्वा पुटेऽनले ॥

Fifth process.

Iron sheets are reduced to ashes, if they are subjected to putam, after having been smeared with hingula, rubbed with human milk, and the juice of the following.—ahimara, ahidamani, basaka, asthisanghara, and arjuna

षष्ठोविधिः ।

जम्बीररससंयुक्ते दरदे तप्तमायसम् ।
बहुवारं विनिक्षिप्तं म्रियते नात्र संशयः ।

Sixth process

Iron is incinerated, if it is heated red hot and then immersed for several times in a solution made of lemon juice, salt, and cinnabar.

सप्तमोविधिः ।

शुद्धं लौहं विचूर्णितं तदनु गोतोये विभाव्यं दिने ।
रात्रौ चैव पुटाश्च विंशतिमिताः शरावसंपुटे शुभे ॥
एवं वै त्रिफलाजलस्य कथितविधिना षष्टि पुटाः ।
कन्याया रसभावनाश्च कथिताश्चाष्टौ च वैद्यैः पुटाः ॥

वज्रार्कहलिनीगुदी ... गुंजातुरंगघन-
निर्गुंडीगरुड़ीकुठेरकन ... कमत्स्या ।-
हेमहंसपदी ... मृतलताभृंगेन्द्ररसैर्दिने ।
रात्रौ तद्रसैश्च पृथक् पृथगहोसप्तैव भावाः पुटाः ॥
राजी ... श्रुतं सुखल्वकतलेपिष्ट्वा दिनैकं दृढ़म् ।
भावाश्चैवं पुटाश्च सप्त कथिताः सर्वैश्च वैद्याधिपैः ॥
पश्चाद्भावपुटाश्च पंच सततं पंचामृतानां पुनस्तच्चूर्णं
दशांशदरदयुतं मद्यं च क्षीरे स्त्रियाम् ॥*
गोदुग्धे च दिवा ... पि ... तं पिष्ट्वा च ... वाः ।
पुटेत् पश्चादद्धं सुपारदेन शुचिना गंधेन ... सैः ॥
तच्चूर्णं परिमर्द्दयेद् दृढ़तरं संपाचयेत् संपुटे
पश्चात् के ... शुचिरसै ... त्रिशः पाचयेत् ॥
पश्चात् कज्ज्वलीसन्निभं ... तरं शुद्धं च लौहं
भवेत् ।
एवं प्रोक्तं ... लैः परिहृतं तल्लौह ... भम् ॥

Seventh process

Purified and powdered iron is to be subjected to bhavanas with cow's urine in day time and heated by putam at night This process is to be performed

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* दधि दुग्धं घृतञ्चैव ... संयुतं मधु ।
पञ्चामृतमिदं प्रोक्तं विधेयं शुभ ... सु ॥

for twenty times The iron is then to be treated similarly for sixty times with the decoction of triphala, and with the juice of kanya for eight times. This is then to be subjected to bhavana for seven times in day time and as many times at corresponding nights, with the juice of each of the following plants, and subjected to heat by putam after each act of bhavana — Bajra, arka, halini, ingudi, haridra, daruharidra, gunja, ashwagandha, nagaramustha, nirgundi, patala-garuri, bana-tulashi, dhattura, chitraka, matsyakshi, red hansapadi, jatamamsi, amrita-lata (a kind of guduchi growing in the amarkantaka forest), bhringaraja, and indra-baruni.

The iron is thus to be rubbed steadily for one day with raji and butter-milk and heated by putam This process is to be performed for seven times. The iron is then to be rubbed with each of the five things known by the name of pancha-mritam (viz. curd, milk, ghee, honey, and sugar), and subjected to putam each time. The iron is then to be rubbed with human milk for sometime, and with cow's milk for three days at a stretch, and then heated by putam. The product is then to be mixed with half its quantity of purified mercury and the same quantity of purified sulphur, and then rubbed with the juice of kanya to be heated by putam. Next the iron is to be rubbed with the juice of kanya only, for three times, and heated by putam every time. The ashes, thus prepared, may then be rubbed with the juice or decoction of balā only, and used according to requirements.

अष्टमोविधिः।

तीक्ष्णदलोद्भुतं सूक्ष्मरजश्च त्रिफ लैः।
पिष्ट्वा दत्त्वौदनं किंचि- क्रिकां प्रविधाय च॥
शोषयित्वाऽति न प्रपचेत् पञ्चभिः पुटैः।
रक्तवर्णं हि तद्भस्म योजनीयं य यथम्॥

Eighth process

Tikshna iron, finely powdered, is to be rubbed with decoction of triphala and a little of powdered rice or wheat, and made into small cakes which are to be dried and subjected to putam Performance of this process for five times leads to the reduction of iron to red-coloured ashes

नवमोविधिः।

मत् गोगन्धवाह्लीकैर्लकुचद्रवपेषितः।
विलि य स लौहं मत्[illegible]कपेषितम्॥
भस्त्राभ्यां सुदृढं ध्मात्वा त्रिशूलीनि विधि।
थोद्धृत्य क्षिपेत् क्वाथे त्रैफले गोज त्मके॥
तस्मादाहृत्य सं तमाद्[illegible] लौहकम्।
पुनश्च पूर्ववत् ध्मात्वा मारयेदखिलायसः॥
मर्दयित्वा ततोगन्धगुड[illegible]जोदकैः।
पुटैस्त्रिंशत्संख्यकैश्च निरुत्थं जायते॥

Ninth process.

Iron sheet, smeared first of all with a paste made of matsyakhi, and then with another paste made of the juice of lakucha fruit, matsyakhi plant, and saffron, is to be heated strongly by means of two bellows till the rise of flames. This is then to be immersed in a decoction of triphala mixed with cow's urine. The iron is then to be hammered into fine powders. The part which has not been incinerated are again to be heated and incinerated in the afore-said way The ashes, thus obtained, are to be subjected to putam for thirty times after having been rubbed each time with sulphur, molases, and decoction of triphala. The ashes, thus prepared, are incapable of being restored to their original state i. e., the state of iron before incineration.

दशमोविधिः ।

समगन्धमयश्चूर्णं कुमारीवारिमर्द्दितम् ।
कियत्कालं पुटीकृतं चूर्णितं म्रियते ध्रुवम् ॥

Tenth process

Powdered iron is incinerated, if it is subjected to putam after having been rubbed for sometime with an equal quantity of sulphur and a sufficient quantity of juice of kanya.

एकादशोविधिः ।

गोमूत्रैस्त्रिफला काथ्या तत्कषायेन भावयेत् ।
त्रिसप्ताहं वरं लौहं दिनैकं मर्द्दयेत् पुनः ॥

रुद्ध्वा गजपुटे पाच्यं ततः क्वाथेन मर्द्दयेत् ।
दिवा पुटेद्रात्रावेकविंशत्यहावधि ॥
एकविंशतिसंपुटैर्म्रियते त्रिविधं ह्ययः ॥

Eleventh process

Iron of excellent quality is to be subjected to bhavana for twenty one days with cow's urine, previously boiled with triphala. It is then to be rubbed for one day with the above decoction and subjected to heat by gajaputam. Next it is to be rubbed during day time with the above decoction, and subjected to putam at night. Performance of the process for twenty one days, leads to the incineration of the iron

द्वादशोविधिः ।

शुद्धलोहभवं चूर्णं लगरुड़ीरसैः ।
मर्द्दयित्वा पुटेद्वह्नौ दद्यादेवं पुटत्रयम् ॥
पुटत्रयकुमार्य्याश्च कुठारछिन्ना रसैः ।
पुटषट्कं ततो दद्यादेवं तीक्ष्णं मृतं भवेत् ॥

Twelfth process

Purified and powdered iron is to be rubbed with juice of patalagaruri and heated by putam This is to be performed thrice It is similarly to be treated with the juice of kanya for three times, and for six times with the juice of kuthara-chhinna. This will lead to the incineration of the tikshna iron.

त्रयोदशोविधिः ।

द्वादशांशेन दरदं तीक्ष्णचूर्णेन मेलयेत् ।
कन्यानीरेन संमर्द्य यामयुग्मं तु तत् पुनः ॥
शरावसंपुटे कृत्वा पुटेद्द गजपुटेन च ।
सप्तधैवं कृतं लौहरजो वारितरं भवेत् ॥

Thirteenth process

Powdered and purified tikshna iron, mixed with one twelfth its weight of cinnaber, is to be rubbed for six hours with the juice of kanya, and then subjected to heat by putam This process is to be performed for seven times leading to the incineration of the powder, which will be so light as to float upon the surface of water

चतुर्दशोविधिः ।

लौहचूर्णं पलंचैवोषरकस्य पलं तथा ।
श्वगन्धा पलं चापि सर्व्वमेकत्र मर्द्दयेत् ॥
कुमार्य्यद्भिर्दिनं पश्चात् गोलकं [illegible]मुपत्रकैः ।
संवेष्ट्य च मृदा लिप्त्वा पुटेद्द गजपुटेन च ॥
स्वांगशीतं समुद्धृत्य सिंदूराभमयोरजः ।
मृतं वारितरं ग्राह्यं सर्व्वकार्य्यकरं परम् ॥

Fourteenth process

Purified and powdered iron, usharaka (saltpetre), and asvagandha, each one palam in weight—all of

these are to be rubbed together with the juice of kanya for one day, and made into a ball which is to be wrapped up with the leaves of eranda and coated all round with mud This ball, when dried, is to be heated by gajaputam, leading to the reduction of the iron into red ashes, which will float upon the surface of water

पञ्चदशोविधिः ।

त्व पेष्या कांजिके तिलोड़िता ।
तन्मध्ये लौहचूर्णञ्च विनिक्षिपेत् ॥
ततोऽयं ते में द्रवैः पूर्यः पुनः पुनः ।
अर्जुनस्यारणालैर्वा लौहमेवं विमार ॥

Fifteenth process

Bark of arjuna is to be rubbed with water, mixed with kanji and kept in a bell-metal pot. Purified and powdered iron is to be thrown into the afore-said liquid, and the pot containing the whole thing is to be exposed to the heat of the sun. Fresh juice of arjuna bark or aranala is to be poured into the pot over and over again, as soon as the iron is found to be dried This leads to the incineration of iron.

षोड़शोविधिः ।

दन्तीपत्रद्रवेन हि लौहचूर्णं विलोड़येत् ।
दिनैकं येद् में देयं पुनः पुनः ॥
। रात्रौ पुटे पचेदेभिर्द्रावैश्च भावयेत् ।
एवमष्टदिनं य्यात् लौहस्य मृत्यवे खलु ॥

Sixteenth process

Purified and powdered iron is to be mixed with the juice of danti leaves, and exposed to the heat of the sun for one day, the juice being applied as many times as necessary for the moistening of the iron powder, whenever it is dried. The iron is then to be dried and subjected to heat at night by putam. It is then to be taken out of the putam, when cooled of itself, and again mixed with the juice, and exposed to the heat of the sun. This is to be done for eight days, leading to the incineration of the iron.

सप्तदशोविधिः ।

चिञ्चापत्रनिभं कुर्य्यात्तिविधं लौहपत्रकम् ।
मृत्पात्रस्थं क्षिपेत् घर्म्मे दन्त्या द्रावैः प्रपूरितम् ॥
द्रावोऽयं दीयते तावत् यावज्जरति लौहकम् ।
म्रियते तीव्रघर्म्मेन चूर्णितं तन्नियोजयेत् ॥

Seventeenth process

Iron is to be made into leaves as thin and small as tamarind leaves These are then to be kept immersed in the juice of danti, contained in an earthen vessel, which is to be exposed to the heat of the sun

The heating is to be continued with fresh juice of danti applied, over and over again, till the incineration of iron, which is to be powdered very fine, when the process is completed

अष्टादशोविधिः ।

कान्तं तीक्ष्णं तथा मुण्डं पत्रीकृतं विशोधयेत् ।
चूर्णितं भावयेत् तत् तु त्रि स्याच्चजद्रवैः ॥
ततस्तद् भावयेद् यत्नाद् द्विदिनं चित्रकद्रवैः ।
त्रिकण्टकद्रवैस्त्र्यहं सहदेव्यास्तथैव च ॥
गोमूत्रैस्त्रिफला थैः त्र्यहं त्र्यहम् ।
धातक्याश्च ततो द्दद्येयं पुटं पुटम् ॥
रुद्ध्वा गजपुटेनैवं मृतं योगेषु योजयेत् ॥

Eighteenth process

Powdered and purified iron is to be subjected to bhavana for three times with each of the following — juice of kantakari, juice of trikantaka, cow's urine, decoction of triphala, and juice of dhataki After each act of bhavana referred to above, the iron is to be rubbed and subjected to heat by Gajaputam. This will lead to the incineration of the iron.

उनविंशोविधिः ।

द्रवैः कुरण्टपत्रोत्थैर्लोहचूर्णं विमर्द्दयेत् ।
दिनैकमातपे तीव्रे तथा द्रवैस्त्रिकण्टजैः ॥
वन्ध्याभृङ्गीपुनर्नवागोमूत्रैश्च दिनं दिनम् ।
गोमूत्रैस्त्रिफला थ्या ततः भावयेत् ॥

त्रिसप्ताहं प्रयत्नेन दिनैकं मर्द्दयेत्ततः ।
रुद्ध्वा गजपुटं पचेद्दिनं क्वाथेन मर्द्दयेत् ॥
दिवा मर्द्यं पुटं द्द रात्रावेकविंशत्यहानि वै ।
एकविंशत्यहेनै- म्रियते त्रिविधं ह्ययः ॥

Nineteenth process

Purified and powdered iron is to be rubbed in the intense heat of the sun for one day with each of the following —juice of kuranta leaves, (b) juice of trikantaka, (c) juice of bandhya, (d) juice of bhringaraja (e) juice of punarnava, and (f) cow's urine The iron is next to be subjected to bhavanas for twenty one days with the decoction prepared from triphala boiled with cow's urine The iron is then to be subjected to Gajaputam for twenty one times at night, after having been rubbed each time during the day with the same liquid (viz decoction of triphala and cow's urine). This is how iron is incinerated

विंशतितमोविधिः ।

माक्षिकञ्च शिला ह्यम्ले हरिद्रामरिचानि च ।
पिष्ट्वा त[illegible]ः पत्रं तप्तं तप्तं निषेचयेत् ॥
सप्तधा त्रिफलाक्वाथे जलेन क्षालयेत् पुनः ।
कु[illegible] पेषयेत् त्रिफलाजलैः ॥
अम्लेनालोड़ितं रुद्ध्वा गजान्धकपुटे पचेत् ।
निरुत्थं जायते भस्म कान्तं तीक्ष्णं च मुण्डकम् ॥
षोड़शांशेन लौहस्य दातव्यं माक्षिकं शिला ॥

Twentieth process.

Makshika, manas-shila, haridra (turmeric), and maricha are to be rubbed with a sour vegetable juice Into this solution are to be immersed hot iron leaves previously purified They are next to be immersed, red hot, into the decoction of triphala for seven times They are then to be washed off in water, and reduced to powder by being hammered by an iron rod. The powder, thus obtained, is to be rubbed with decoction of triphala and a sour non-metallic juice, and then heated by Gajaputam in a blind crucible This will result in the reduction of the iron into ashes, incapable of being restored to their original state The makshika and manas-shila used in this case should be one-sixteenth part of the iron

एकविंशोविधिः ।

तिन्दु य मज्जाभिर्लिप्त्वा लौहं खरातपे ।
धारयेत् ंस्य स्थं दिनान्तं तत् पुटेन्निशा ॥
त्रिफ थसंयुक्तं कुर्य्यादेवम् पुनः पुनः ।
अनेन म्रियते लौहमचिराद्धि न संशयः ॥

Twenty first process.

Purified and powdered iron is to be smeared with the internal kernel of tindu fruits (previously rubbed with water and made into a paste), kept in a bell-metal pot, and subjected to the heat of the sun during the whole of the day time, and again subjected to heat by putam at night, having been pre-

viously rubbed with the decoction of triphala. This process of smearing and heating, as described above, is to be repeated over and over again, leading to the incineration of the iron

द्वाविंशोविधिः ।

स्थाल्यां वा लौहपात्रे वा लौहदर्व्या विलोड़नैः ।
पाचयेत् त्रिफलाक्काथे दिनैकं लौहचूर्णकम् ॥
तत्पिण्डं त्रिफलातोयैः पिष्ट्वा रुद्ध्वा पुटे पचेत् ।
षोड़शाहानि कर्त्तव्या प्रक्रियैषा प्रयत्नतः ॥
ततः त्रिधा प्रकर्त्तव्यं स्थालीपाकम् पुटाद[illegible] ।
भृङ्गीद्रावे तालमूल्यां हस्तिकर्णस्य मूलके ॥
शतावर्य्या विदार्य्याश्च मूलक्काथे च त्रैफले ।
वर्णितं सर्व्वमेतद्धि कर्त्तव्यं पुनरेव च ॥
ततः पुनर्णवातोयैर्दशमूलकषायकैः ।
वृहत्याश्च कषायैर्वा बीजपुरस्य तोयतः ॥
ब्रह[illegible]ः शिग्रुरसैर्गोपयसाऽपि च ।
प्रत्येकेन प्रपेष्याद्यौ पूर्व्ववत्ततपुटे पचेत् ॥
भावयेत्तु द्रवेनैव पुटान्ते याममात्रक[illegible] ।
प्रत्यकेन क्रमादेव पिष्ट्वा पुटेश्च पाचयेत् ।
अनेन म्रियते सम्यक् कान्तं तीक्ष्णञ्च मुण्डकम् ॥

Twenty second process

Purified and powdered iron is to be heated with

the decoction of triphala, kept in an iron pot, and turned constantly with an iron ladle till the whole thing turns into a lump, which is to be rubbed with the decoction of triphala and subjected to heat by putam This process is to be performed for sixteen times The iron is then to be subjected to heat by the *sthali paka* system (to be described in process No 26) with the following liquids —juice of bhringaraja, juice of talamuli, juice of the root of hastikarnapalasha, juice of the root of shatavari, juice of the root of bidari, and decoction of triphala. Next, all these processes from beginning to end are to be again performed for the second time. The iron is then to be subjected to bhavana for three hours at a stretch with each of the under-mentioned liquids, respectively — juice of punarnava, decoction of dashamula, decoction of brihati, juice of bijapura fruit, juice or decoction of palasha seeds, and cow's milk. It is then to be rubbed with the same juice, and subjected to heat by putam after each act of bhavana and rubbing This results in the incineration of the iron.

त्रयोविंशोविधिः ।

पत्रं लौहभवं सुतप्तमसकृत् थे क्षिपेत् त्रैफले ।
चूर्णीभूत गो पचेत् त्रिफलजे क्वाथेऽथवा गोजले ॥
मत् त्रीत्रि ारसेन पुटयेद्यावन्निरुत्थं भवेत् ।
पश्चाद्भावि मद्भुत सुपुटित सिद्ध भवेदायसम् ॥

Twenty third process.

Iron sheets are to be burned red hot anc

immersed in the decoction of triphala. They are then to be reduced to powder and boiled with a decoction of triphala or cow's urine. The iron is next to be rubbed with decoction of triphala or juice of matsyakshi, and subjected to heat by putam The last process is to be repeated till the iron becomes incapable of being restored to its original condition Thus incinerated, the iron gains in efficacy, if subjected to bhavana with the juices of suitable herbs, and again subjected to heat by putam after every act of bhavana

चतुर्विंशोविधिः।

परिप्लुतं दाड़िमपत्रवारा लौहं रजः
स्वल्पकठोरिकायाम्।
म्रियेत वस्त्रावृतमर्कभासा पुटेत्
ततो वै त्रिफलादिवारा॥

Twenty fourth process.

Purified and powdered metal is incinerated, if it is kept immersed in the juice of pomegranate leaves contained in a small earthen basin, and exposed to the heat of the sun, duly covered by means of a piece of cloth.

Purified iron, thus reduced, is to be rubbed with the juice or decoction of *triphaladi* and subjected to heat by putam (For meaning of *triphaladi*, see page 48.)

पञ्चविंशोविधिः ।

विशोधितमयश्चूर्णं गोमूत्रेन वि र्द्दयेत् ।
शतशस्तत् पुटेद्वह्नौ मृतमेवं भवेद्ध्रुवम् ॥

Twenty fifth process.

Purified and powdered iron is to be rubbed with cow's urine and subjected to putam Performance of this process for hundred times results in the incineration of iron

रसव्यतिरेकेन मारितलौहस्य पुटविधिः ।

शतादिस्तु सहस्रान्तः पुटो देयो रसायने ।
दशादिस्तु शतान्तःस्यात् पुटो वै व्याधि शनः ॥
वाजिकर्मणि विज्ञेयः पश्च पश्च शताधिकः ।
पुटाद्दोषविनाशःस्यात् पुटादेव गुणोदयः ॥
म्रियते च पुटाल्लोहं पुटांस्तस्मात् समाचरेत् ।
यथा यथा प्रदीयन्ते पुटाः वहवो यदि ॥
तथा तथा विवर्द्धन्ते गुणाः शत सहस्रशः ॥
धातूनां नीरसं भस्म पुटाधि न शस्यते ।
सरसस्य पुटाधिक्यं नैव हि गुणावृद्धये ॥

Utility of putam.

For the purpose of incineration of iron, heating by putam for ten to hundred times may be considered necessary for the cure of diseases only. Putam

for hundred to one thousand times is necessary for the purpose of curing and preventing physical decay and senility For the purpose of retention of semen, it is necessary to subject iron to putam for more than one thousand times

Increase in the number of putam is calculated to increase the efficacy of a metal, incinerated without mercury. This is not the case with a metal incinerated by the help of mercury

षड् विंशोविधि ।

भानुपाकात् तथा स्थालीपाक पुटपाकतः ।
निरुत्थो जायते लौहो यथो त्तदो भवेत् ॥

Twenty sixth process.

Iron is incinerated and becomes incapable of being restored to its former condition, if it is roasted by means of all the three different operations called (*a*) Bhanu-paka, (*b*) Sthali-paka, and Puta-paka, as described below.

भानुपाकविधिः ।

लौ शदि लौहञ्च मुद्गरेण हतं मुहुः ।*
कृत्वाम्बुगति शुद्धं जलेन त्रैफलेन वा ॥
न्त येद्बहुशः पश्चाद् द्रवाच्चैव विमोचयेत् ।
शोषयेद् भानुभिः पुनर्भानुपाके प्रयोजयेत् ॥†

* लौहदृशदि लौहखल्वे इत्यर्थः ।

† भिः सूर्यकिरणैः भिः ।

प्रदेयं भानुपाके तु लौहतुल्यं फलत्रिकम् ।
जलं द्विगुणितं दत्त्वा चतुर्भागंतु रक्षयेत् ॥
एवमुक्तफलक्काथजलं द   पुनः पुनः ।
शोषयेत् सूर्य्यतेजोभिर्निरन्तरमहस्त्रयः ॥
अथवा तत्र तत् क्काथं दत्त्वा सप्तवारं भिषक् ।
शोषयेदर्करश्मिभिः   वारं प्रयत्नतः ॥

(a) *Bhanu-paka Process*

Purified iron is to be reduced to powder by being kept in an iron mortar and hammered repeatedly. The powder is then to be mixed with a sufficient quantity of water or decoction of triphala, and thus washed off. It is then to be dried by being exposed to the sun, subjected to the process of heating called *bhanu-paka* For the purpose of bhanu-paka, triphala, equal in quantity to the iron, is to be boiled with double its quantity of water which is to be reduced to one fourth its quantity The iron is now to be saturated with the decoction referred to above, and dried by the sun. The process is to be performed continuously for three days or it may be performed for seven times

अथ   ीपाकविधिः ।

इत्थमादित्यप   न्ते   ा   पा   चरेत् ।
फलत्रिकं ग्राह्यमयसस्त्रिगुणीकृतः ॥

तस्य षोड़शिकं तोयमष्टभागावशेषि म् ।
मृदुमध्यकठोराणामन्येष म् ॥
क्थनीयं समादाय चतुरष्टौ च षोड़श ।
गुणानां प्यते तोयं शेषयेदयसा ॥
स्वर ापि लौहेन पाके स ता ।
ाल्यां थादिकं दत्वा यथाविधि विनिर्मितम् ।
पाकेन च्चीयते येन ािपाक दुच्यते ॥
हस्तिकर्णपलाशस्य मूलञ्च शतमूलिका ।
भृङ्गराजपितृप्रियपुन ारसैः सह ॥
स्थाल्यां लौहं पचेद्धीरः थातु ादनु ।
यथादोषौषधेनापि स्थालीपाको विधीयते ॥

(*b*) *Sthali paka*

Roasting of iron by sthali-paka is to be resorted to after bhanu-paka For the purpose of sthali-paka, triphala, three times in weight of the iron, is to be boiled with water, sixteen times in weight of the former, to be reduced to one eighth of the water

Decoctions of other things than triphala are to be prepared as follows —The article from which a decoction is to be prepared is to be equal in weight to the iron. Such an article is to be boiled with water which is four, eight or sixteen times its weight, according as it is soft, hard, or very stiff, respectively. The quantity of the decoction, thus

prepared, should be equal to that of the iron. If the juice of a plant is to be used instead of a decoction, the quantity of such a juice should also be equal to that of the iron. Roasting by sthali-paka means heating of the iron by fire in an iron cauldron, in which the iron is boiled with some decoctions or juices of plants, till the decoction or juice is completely dried up Such a roasting generally takes place, first of all, with decoction of triphala (to be prepared in a way described above), and then with the decoction or juice of the following —hastikarna-palasha roots, satamuli, bhringa-raja, kesharaja, and punarnava For the purpose of sthali-paka, juices or decoctions of other herbs also may be made use of, if called upon by the nature of the disease for the treatment of which the iron is meant to be prepared.

अथ पुटपाकविधिः ।

स्थालीपाके सु प्रक्षाल्य स्वच्छवारिणा ।
शुष्कं संचूर्ण्य यत्नेन पुटपाके प्रयोजयेत् ॥
पुटाद्दोषविनाशः स्यात् पुटादेव गुणोदयः ।
म्रियते च पुटाल्लोहस्तस्मात् पुटं समाचरेत् ॥
यथा यथा प्रदीयन्ते पुटा सुबहुशो यदि ।
तथा तथा प्रकुर्व्वन्ति गुणानेव सहस्रशः ॥
पुटपाकेन तु शस्यते रस ।
दशादिशतपर्य्यन्तो गदे पुटो विधि ः ।
शतादिस्तु सहस्रान्तः पुटो देयो यने ॥

वाजिकर्मणि विज्ञेयो दशादिः शतपञ्चकः ।
ाविह्न पुटेल्लोहं यावच्चूर्णीकृतं जले ॥
निस्तरङ्गे लघुत्वेन समुत्तरति हंसवत् ।
पुटपाकौषधस्यापि थो वा स्वरसोऽपि बा ॥
वक्ष्यमानप्रमाणेन कर्त्तव्यो भिषजां वरैः ।
सर्वेषां स्वरसाभावे थो ग्राह्यो मनीषिभिः ।
अभावे स्वरसस्यापि क्राथ एव फलत्रि त् ॥

(c) *Puta-paka*

The iron, properly roasted by sthali paka process, should be washed with clear water, then dried, powdered, and again roasted by puta-paka Roasting by putam serves to remove the natural blemishes and to increase the properties of iron and other metals Such a roasting causes the incineration of iron which gains in efficacy in proportion to the number of putam resorted to Metals, properly incinerated by means of putam, should be used in mercurial operations. If it is meant to cure diseases only, iron, incinerated by 10 to 100 putams, may be made use of. Putams from 100 to 1000 are to be resorted to, if it is meant to prevent and cure senile decay. Putams from 10 to 500 are necessary, if it is meant to use the metal as an aphrodisiac. Putams, in case of a metal, are to be resorted to so long as it does not float upon calm water For the purpose of puta-paka, the juice or decoction, whichever is

available, of the herbs named below should be made use of —

अथ त्रिफलादिगणः ।

त्रिफला त्रिवृता दन्ती की मूलि ।
वृद्धदारकवृश्चीरवृषप चित्र :॥
शृङ्गवेरविड़ङ्गौच भृङ्ग ौषधम् ।
दाड़िमस्य च पत्रानि शतपुत्री पुनर्णवा ॥
कुठारकामकै कन्दः तन्त्री स्य पर्णि ।
हस्तिकर्णपलाशश्च कुलिशः केशर कः ॥
मानः खण्डितकर्णश्च गोजिह्वा लौहमार :।
गिरिशैर्योगिभिः प्रोक्तस्त्रिफलादिरयं गणः ॥
सामान्यपुटपा र्थमेतानीच्छन्ति सूरयः ।
विशेषपुट य गणानन्या श्रृणूदितान् ॥

अथ एरण्डादिगणः ।

एर :शारिवा द्राक्षा शिरीषश्च रणी ।
माषमुद्गाख्यपर्णिनौ विदारीकन्दकेतकी ।
एरण्डादिगणो ह्येष सर्व्ववातवि रनुत् ॥

अथ किरातादिगणः ।

किरातममृता निम्बः कुस्तुम्बुरु शतावरी ।
पटोलंचन्दनं पद्मं शाल्मल्युडुम्बरी जटा ।
पैत्तिकामयहन्ताऽयं वि रातादिगणो :॥

अथ शृङ्गवेरादिगणः।

शृङ्गवेर मूलानि निर्गुण्डी कौटजं फलम्।
करञ्जद्वि मूर्वा शोभा शिरीषकौ॥
वरुणश्चार्कपर्णंच पटोलं कण्टकारि।
शृङ्गवेरादिको ह्येष गणः श्लेष्मगदापहः॥

अथ गोक्षुरादिगणः।

गोक्षुरक्षुरकौ व्याघ्री सिंहपुच्छीद्वयं स्थिरा।
गोक्षुरादिरिति प्रोक्तो वातश्लेष्महरोगणः॥

अथ पटोलादिगणः।

पटोलपत्रकोशीरकासमर्द्दापराजिताः।
लोध्रेन्दीवरकह्लारवराही कान्तया सह।
पटो दिरिति ज्ञेयः पित्तश्लेष्मगदापहः॥

अथ किंशुकादिगणः।

किं ुकः काश्मरी विश्वमग्निमन्थश्च क कः।
श्योनाकं शालपर्णी च सिंहपुच्छीद्वयं स्थिरा॥
पा ा री च ती बिल च।
किं कादिगणो ह्येष दोषत्रयहरोमतः॥

अथ शतावर्य्यादिगणः।

श री ब धात्री गुडूची वृद्धदारकः।
वानरीभृङ्गर ख्यविदारीगोक्षुरक्षुराः।
वाजिगन्धा क चैव वाजिकर्म्मसु स्यते॥

अथ विदार्य्यादिगणः ।

विदारीकन्दपिण्डाह्वभृङ्गराजशतावरी ।
च्चीरिकंचुकभल्लाता तकाचित्रकास्तथा ॥
करिकर्ण शश्च मुषलीमधु वपि ।
मुण्डरीकेशराजौच शस्ता एते रसायने ॥

अथ पुटपाके उपदेशः ।

मान्ये च विशेषे च पुटे यद्वयत् प्रकीर्त्तितम् ।
मिलितैरेकशो वा पुटयेत् : ।
पुटपाके फलादीनामयसा ग्रहणं म् ॥

Triphaladi gana.

They are as follows —triphala, trivit, danti, katuki, tala-muli, briddha-dara, brischira, basaka, chitraka, ardraka, biranga, bhringa-raja, bhallataka, shunthi, darima leaves, shatamuli, punarnava, kuthar-chhinna, mustaka, suranam, guduchi, veka-parni, hasti-karna-palasha, asthi-sanhara, kesha-raja, mana, khandita-karna (kharakona), and go-jihva. These are incinerators of iron They are generally used in the process of heating of iron by putam.

Erandadi-gana.

They are as follows —eranda, shariba, draksha, shirisha, prasarani, mashaparni, mudgaparni, bidari-kanda, and ketaki. They serve to pacify all the diseases due to an abnormal excess of air. Iron, rubbed with the juice or decoction of these drugs,

and heated by putam, is therefore efficacious in diseases due to an excess of vayu

Kiratadi-gana

They are as follows —kirata, guduchi, nimba bark, green dhanya, shatavari, patala, chandana, padma, shalmali, udumbara, and jata-manshi. They serve to pacify all the diseases due to an abnormal excess of pittam. They should therefore be specially used in the process of incineration of iron by heating by putam, if it is meant to use such iron in diseases due to excess of pittam

Shringaberadi gana

They are as follows —ardraka, nirgundi, indrajava, karanja, visha-karanja, murba, shobhanjana, shirisha, baruna, arka leaves, patala, and kantakari They serve to cure diseases due to an excess of kapha They should therefore be used in the process of incineration of iron by heating by putam, if it is meant to use such iron in diseases due to an excess of kapha.

Gokshuradi gana

They are as follows —gokshura, kokilaksha, kantakari, shala-parni, and prishni-parni They serve to pacify an abnormal excess of vayu and kapha They are therefore to be specially used in processes of incineration of iron by heating by putam, if it is meant to use such iron in diseases due to an excess of vayu and kapha.

Pataladi gana.

They are as follows —patala leaves, ushira,

kasha-mards, aparajita, lodhra, nilotpala, kalhara, (white utpala), barahi-kanda, and priyangu They serve to pacify diseases due to an excess of pittam and kapha. Iron meant to cure such diseases should be rubbed with the juice or decoction of these drugs before it is heated by putam

Kinshukadi-gana

They are as follows —palasha, gambhari bark, shunthi, agnimantha, trikantaka, shyona, sapta-parni, shala-parni, prishni-parni, shalmali, patala, kantakari, brihati, and bilva They serve to pacify diseases due to an abnormal excess of the three doshas (i.e. vayu, pittam, and kapha). Iron meant to cure such diseases should be rubbed with the juice or decoction of these drugs and then heated by putam.

Shatabarjadi gana

They are as follows —shatabari, bala, amalaki, guduchi, briddha-daraka, banari, bhringa-raja, kesha-raja, bidari, gokshura, kokilaksha, ashva-gandha, and pippali They are aphrodisiac Iron meant to be of this description should be incinerated with these drugs

Bidarjadi gana

They are as follows —bidari-kanda, tagara, bhringa-raja, shatabari, kshirika, kanchuka, bhallataka, guduchi, chitraka, hasti-karna-palasha, mushali, jasti-madhu (or mahua plant), mundiri, and kesharaja These are curer and preventer of senile decay. Iron meant to be of this description should be rub-

bed with the juice or decoction of these drugs, before it is heated by putam

N B. Iron should be rubbed, before being heated by putam, with all or any one of the groups of drugs referred to above, according to the necessity of the case. Such a rubbing, followed by an act of heating by putam, may be repeated as many times as desired For the purpose of each act of such a rubbing, the quantity of the juice or decoction of the group of drugs referred to above should be equal to that of the iron.

प्रयोजनवशा. पुटपाके प्रयोज्या　　　:।

वारिशिग्रु　शिभकर्णभृङ्गद्रवाम्भसा ।
अत्रोत्तरे पुनर्दद्याद्भूयसस्त्रि　पुटान् ॥
तद्दानाद्बद्धकोष्ठस्य लौहं वातानुलोम्यकृ　।
स्मृतं पिप्पलितो　मन्दाग्नेरग्निवृद्धये ॥
　क्र　ठ्येऽरुचौ जम्बीरवारिणा ।
शिरीषतो　वर्ण्यं वाते वाट्या　म्भसा ॥
पित्ते　तोयेन मरिचाद्राम्बुना कफे ।
दशमूली　येन सन्निपातोद्भवे गदे ॥
किराततिक्ततोयेन ज्वरेषु विषमेषु च ।
गुरुचीवारिणा मेहेऽतिसारे　टजाम्भसा ॥
ब्रह्मयष्ट्यम्भसा श्वासे कासे वास　रिणा ।
कोदुम्बरिकातोयै र　पित्त　न्तये ॥

पाण्डुत्वे महिषीमूत्रैः कृमौ जन्तुघ्नतण्डुलैः ।
कुष्टे विडङ्गभल्लातैः प्लीह्नि रोहितकाम्भ ॥
सिन्दुवारद्रवैर्मू घाते शूले तुषोदकैः ।
पामादद्रु विचर्चीषु दद्याद्द्रु रिणा ॥
मुशलीवारिणार्शःसु हृद्रोगेऽर्जुनवारिणा ।
तप्रशान्त्यर्थमुच्चटामूलजैर्द्रवैः ॥
सोमराजी ः कुष्टे त हि खदिरोदकैः ।
शिलोद्भेदाम्बुनाऽश्मर्य्यामुदा त्रिवृज्जलैः ॥
गुल्मेऽम्लदाड़िमाम्भोभि ब्राह्मीतोयैः स्वरक्षये ।
वाजिगन्धाजटातोयै राजयक्ष्मणि क्षये ॥

Putam with special drugs for the treatment of special diseases

Iron is to be subjected to heat by putam after having been rubbed with the following drugs, if it is meant to cure constipation .—triphala, sigru, hasti-karna-palasha, bhringa-raja, and again triphala. Similarly, iron is to be rubbed with decoction of pippali for the purpose of curing indigestion. Juice of bidari is to be used for the treatment of impoteney. Lime juice is to be made use of, for the treatment of loss of appetite. Decoction of shirisha is to be thus used for the removal of loss of complexion Juice of bala is to be used for the treatment of rheumatism, paralysis, and other diseases due to excess of vayu Juice of parpata is to be used for

diseases due to pittam Decoction of dashamula for disesases due to an abnormal excess of the three doshas Juice of kirata-tikta is to be used in bisama-jvaram (malaria, kalazar, etc) Decoction of guduchi in spermatorrhoea Juice of kutaja in diarrhœa Juice of bhargi in asthma Juice of bashaka in cough. Juice of kakodumbura in racta-pitta Urine of she-buffalo is to be used in anemia Decoction of biranga and rice in worms Decoction of biranga and bhallataka in leporsy. Decoction of rohitaka in spleen Juice of sindu-bara in gleet and stricture Kanji in colic. Juice of dadrumari in itches and ringworm Juice of mushali in piles Juice of arjuna in heart disease. Juice of ucchata roots in rheumatism. Decoction of somaraji and khadira wood in leprosy. Juice of shilodbheda in stone disease Juice of tribrit in udabarata or intestinal obstruction Juice of sour pomegranate in gulma Juice of brahmi in hoarseness of voice Juice of ashva-gandha and jata-mangsi in phthisis

पुनः स्थालीपाकविधिः ।

अथ कृत्व [illegible]ोभाण्डे दत्त्वा त्रिफलाद्यशेषमन्यद्वा ।
प्रथमं स्थालीपाकं कुर्य्यादेतत् [illegible] ॥
गजकर्णच्छदमूलशतावरीभृङ्गकेश[illegible]रसैः ।
प्राग्वत् [illegible]लीपाकं कुर्य्यात् प्रत्येकमेकं वा ॥

(d) Sthalipaka for the second time

The iron reduced in the above manner is to be

boiled with triphaladi, etc (see page 47) in an iron pot When dried, it is again to be boiled with some or all of the following juices —hasti-karna-palsha roots, satabari roots, bhringa-raja, and kesha-raja

सप्तविंशोविधि ।

कान्तादिलौहमारणविधानसर्व्वस्व उच्यते तावत् ।
यस्य कृते तल्लौहं पक्तव्यं तस्य शुभदिवसे ॥
समृदङ्गारकरालो ागे शिवं समभ्यर्च्य ।
वैदिकविधिना वह्निं निधाय दत्त्वाहुती तः ॥
शक्त्यनुरुपं द ृ द्विजाय सन्तोषिने गुणिने ॥
सन्तोष्य कारं प्रसादपूगादिदा ानैः ।
आदौ तदश्मसारं निर्मलमेकान्ततः कुर्यात् ॥
तदनु कु ाञ्छि त्रिफलागिरिकर्णिकास्थिसंहारैः ।
करिकर्णच्छदमूलशतावरीकेशराजरसैः ॥
शालि ाशी प्रावृज्जभृङ्गराजैः ।
लिप्त्वा दग्धव्यं तदृ ष्टिक्रियलोहकारेण ॥
चिरजलभावितनिर्मलशा ङ्गारेण परित आच्छाद्य ।
कुशलाध्मापितभस्त्रानवरतमुक्तेन पवनेन ॥
मृच्छवलसलिलभाञ्जि किञ्च स्वच्छाम्बुसं तानि ॥
द्रव्यान्तरसंयोगाद्वा स्वां शक्तिं भेषजानि मुञ्चन्ति ।
धलिमत् सर्वं सर्व्वत्र ि र्जयेत् तस्मात् ॥

संदंशेन गृहीत्वान्तः प्रज्वलिताग्नि ध्यादपनीय ।
ति यथायथ ` तथैव दग्धं रक्षयेन्निपुणः ॥
निहितमूर्द्धमुखांकुशलग्नं त्रिफलाजले
विनिःक्षिपेत् ।
निर्वापयेदशेषं शेषं त्रि लाम्बु रक्षेच्च ॥
यल्लोहं न मृतं तत् पुनरपि पक्तव्यमुक्तमार्गेण ।
न मृतं तथापि यत् तन् न पक्तव्य गोहमेव हि तत् ॥
तदनु घनलोहपात्रे कालायसमुद्गरेण संचूर्ण्यं ।
दत्त्वा ब शः सलि ˙ प्रक्षाल्याङ्गारमुद्धृत्य ॥
तदयः केवलमग्नौ शुष्कीकृत्वातपेऽथवा पश्चात् ।
लोहशिलायां पिंष्यादसितेऽश्मनि वा तदप्राप्तौ ॥

Twenty seventh process.

Shiva is to be worshipped on a piece of land, duly cleansed, on a day consisdered auspicious for the man for whom the iron is meant to be prepared (an auspicious day is to be ascertained having regard to the configuration of the planets for the time being, with special reference to the position of the moon at the time of birth) The worship is to be conducted and a sacrifical fire is to be kindled in accordance with the rites prescribed in the Vedas. Presents may also be given to the Brahmanas, chemists, and the smiths according to ability. First of all, the iron is to be purified very carefully. It is to be coated with a paste made of

the following herbs, covered by means of charcoal prepared from shala wood (previously cleansed by being washed off in clear water), and heated by means of a bellows —kuthara-chinna, triphala, girikarnika (black aparajita), asthi-sanhara, hasti-karna-palasha-roots, shatavari, kesha-raja, shalincha-roots, mulaka, and bhringa-raja The iron, thus heated, is to be immersed into decoction of triphala only, when the coating is completely burnt out It is then to be washed off, dried, and duly powdered The process is to be repeated over and over again until the iron is reduced to ashes. The metal which is not incinerated by the above process is not iron at all. In performing the process, care should be taken to see that dust, mud, and other impurities do not find their way into the iron at any stage of its incineration, in as much as herbs and other medicinal ingredients lose their property coming in contact with foreign matters.

अथ पुटपाकप्रकारः ।

लौहादि पुटनीयं हि रवितापसुशोधितम् ।
संरुध्य मृत्शरावाभ्यां सन्धिलेपं समाचरेत् ॥
सपंकवस्त्रखण्डेन तथा कर्दमयोगतः ।
[illegible]संपुटं तद्धि संपुटं च पुटं तथा ॥
पा[illegible] पुटयन्त्रेन पुटपाको विकथ्यते ।
हस्तमात्रमिते गर्त्ते करीषेनार्द्धपूरिते ॥

अ । तुष ष्टाभ्यां शरावसंपुटं क्षिपेत् ।
अग्निं निधापयेत् तत्र ततो गर्त्तं प्रपूरयेत् ॥
दिवा वा यदि वा रात्रौ विधिनानेन पाचयेत् ।
चतुर्भिः प्रहरैरेव पु ाकेन मारयेत् ॥
कुक्कुटपुटसंज्ञोऽयं पुटपाको विकथ्यते ।*
पुटपाके क्षणादूर्द्ध्वं स्थितो भवति भस्मसात् ॥
अधस्तादपकृष्टस्तु मन्दो भवति वीर्य्यतः ।
कुण्ड गो नाच्छन्न आकृष्टव्यः सुशी : ।
य ततस्य गुणहानिः प्रजायते ॥

How to heat a thing by putam

The material which is meant to be heated by putam is to be dried up by sun's rays, and put upon an earthen basin, covered by another basin of the same kind, the joint being closed by means of mud and rags. The basins, thus joined, are called putam, samputam or sharaba-samputam Heating of materials, confined in this appartus, is called puta-paka *

Fill up one half of a cubical pit, one cubit in dimensions, with cowdung cakes or wood and husks, set fire to it, and place the samputam containing iron, etc, upon the heap Fill up the remaining half of the pit with cowdung cakes, etc. Such a

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* ` २९३—२९६ पृष्ठाः : ।

* See page 293 and 296, Vol. I.

fire is to be kept burning for 12 hours continuously. When cooled of itself, the samputam is to be taken out, and the iron, etc, to be obtained, breaking open the samputam Heating in this way is known by the name of kukkuta putam (see page 296, Vol 1) Heated in this way, even a little longer than the prescribed time of 12 hours at a time, the contents of the iron becomes incinerated, but they lose in quality, if they are heated for a shorter than the time prescribed

अष्टाविंशोविधिः ।

ज्ञेयमेतत् स्वतन्त्राऽयःपाकं न पलपञ्चकादर्वाक् ।
सुबहुप्रयासदोषादूर्द्ध्वं त्रयोदश तु ॥
तत्रायसि नीये दौ त्रयोदश न्ते ।
लौहात् त्रिगुणा त्रिफला षड्भिः रधिका ॥
मद्द टनस्थालीपा स्त्रिफलैकभागसम्पा : ।
त्रिफलाभागद्वितयं लौहपाकार्थम् ॥
सर्व्वं यःपुटनस्थालीपाक र्य्ये जलं संख्यातम् ।
प्रतिपलं तद्द द्विगुणं वाऽथ र्थमादेयम् ॥
ष्टमांशेन शेषः थ यत्नतः स्थाप्यः ।
तेन हि मद्द नपुटनस्थालीपा भविष्यन्ति ॥
पा र्थे तु त्रिफलाभागद्वितयं शरावसंख्यातम् ।
प्रतिपलमम्बुसमं ादधिकं द्वाभ्यां शरावाभ्याम् ॥

तत्र चतुर्थीभागः शेषो निपुणैः गो ह्यः ।
अयसः पाकार्थत्वात् स हि सर्व्व त् प्रधानतमः ॥
पाकार्थमश्मसारे पञ्च दौ त्रयोदश[illegible] ।
दुग्धशरावद्वितयं पादैरेकाधिकैरधिकम् ॥
पञ्चपलादेर्मात्रा तदभावे तदनुसारतो ग्राह्यम् ।
चतुरादिकमे न्तं शक्तावधिकं त्रयोदशादिकात् ॥
ि त्रिकटुचि कान्त मकविड़ङ्गानाम् ।
जाती तीको ककोे ङ्गानाम् ॥
रि कृष्णजीरयोरपि चूर्णान्यय स नि स्युः ।
त्रि त्रिकटुविड़ङ्गा नियता अन्ये यथाप्रकृति ॥
क सदोषकृते तीफलादेर्लवङ्गकान्तस्य ।
त्तेपः प्त्यनुरूपः सर्व्वस्योन द्यैः ॥
कान्त मक निःशेषं दोष हर : ।
द्विगुणत्रिगुणचतुर्गुणमाज्यं ग्राह्यं यथाप्रकृति ॥
यदि भेषजभूयस्त्वं गोकत्वं वा तथापि चूर्णाणाम् ।
सा यं संख्याभूयोऽल न भूयोऽ ॥
एवं धात्वनुसारात् तत्तत् कथितौषधस्य बाधेन । *
सर्व्वत्रैव विधेयस्तदकथितस्यौषधस्योहः ॥

Twenty Eighth process

For the purpose of incineration, the minimum

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* बाधेन वर्जनेनेत्त्यर्थः ।

and maximum quantities of iron should be 5 and 13 palas, respectively. In other words, iron less than 5 palas and more than 13 palas in quantity is unfit for incineration For the purpose of such incineration, triphala, three times in weight of the iron, plus 6 palas is to be made use of One third of this triphala is to be used for the purpose of rubbing, heating by putam and by sthalipaka process For the purpose of the final act of roasting, the remaining two thirds of triphala is to be used. For the purpose of rubbing and heating by putam of iron, the quantity of water to be used for the preparation of decoction of triphala should be sixteen or thirty two times that of the triphala. If the quantity of iron varies from seven palas to 13 palas, the quantity of water to be used in preparing decoction should be as stated above, plus an additional quantity of 3 to 11 sarabas on the whole. The quantity of water thus used is to be reduced, by boiling, to one eighth of its original quantity The decoction, thus prepared, should be used in rubbing and heating by putam and then boiling the iron by the sthali paka process

Next is the process of final roasting For this purpose, the parts of triphala, as referred to above, should be boiled with water, eight times in weight, plus an additional quantity of two sarabas added to the whole The water thus boiled with triphala should be reduced to one fourth its original weight The decoction so prepared is the most important factor in the process of final roasting

of the iron. If kanta iron or load stone is to be reduced to ashes, milk, one and one fourth prasthas in weight, should be added to the decoction at the time of the final roasting Kanta iron or load stone may be incinerated, even if it is less than five palas in weight As a matter of fact, the less the weight of the kanta iron to be incinerated, the greater is its efficacy. The milk referred to above is prescribed for the preparation of kanta lauha, 5 to 13 palas in weight. If the quantity of the kanta iron is less than 5 palas, the quantity of the milk to be used should be reduced accordingly At the time of the final roasting of all sorts of iron, including load stone, powder of the following herbs, equal in quantity to the iron, is to be mixed with the iron undergoing roasting — triphala, trikatu, chitraka roots, nagarmustaka, bidanga, jatiphala, jatipatra, ela, kakkola, lavanga, white jira, and black-jira Of these, triphala, trikatu, and bidanga are to be used in all cases, whereas they are to be chosen from, having regard to the constitution of the patient for whom the preparation is meant For the purpose of removing the faults of black iron (यसः), all the herbs from jatiphala to lavnga are to be given so far as they can be procured In the event of the one being incapable of being procured, that which precedes it in the above list should be used as a substitute. Of all the herbs named above, only nagara mustaka is sufficient for removing the faults of any iron In all cases of final roasting, clarified butter to the extent of 2 to

4 times in weight of the iron (to be decided upon in reference to the constitution of the patient) is to be applied at the final roasting Herbs, not included in the list, may also be made use of, if considered necessary, exactly as one or more of those included in the list may be rejected, if called upon by the nature of the case

ऊनत्रिंशोविधिः ।

लौहचूर्णं पलद्वन्द्वं गुड़गन्धौ समांशकौ ।
खल्वे विमर्द्य नितरां पुटेद्विंशतिवारकम् ॥
पेषणं तु प्रकर्तव्यं पुटः पश्चात्प्रदीयते ।
अनेन विधिना सम्यग्भस्मीभवति निश्चितम् ॥
सर्वरोगान् निहन्त्येव नात्र कार्या विचारणा ।
श्वेतपुनर्णवापत्रतोयेन दशसंख्य :।
पुटास्ततः प्रदेयाश्च सिन्दूराभं प्रजायते ॥

Twenty ninth process.

Two palas of purified and powdered iron and the same quantity of each of gandhaka and gurh (molases) are to be rubbed together and heated by putam. This process is to be performed for twenty times leading to the incineration of the iron, which should then be rubbed with the juice of white punarnava for ten times, and subjected to heat each time it is so rubbed. The product will be ashes as red as vermilion.

त्रिंशोविधिः ।

दाड़िमस्य दलं पिष्ट्वा त ुर्गुणवारिणा ।
तद्रसेनायसं चूर्णं प्रा त् सुशोधितम् ॥
अ शोधयेत् पुटेदेवं पुनः पुनः ।
एकविंशतिवारं न् म्रियते संशयः ॥

Thirtieth process

Powdered and purified iron is to be saturated with the juice of pomegrante leaves pestled with four times their weight of water. When dried by the sun, they are to be subjected to heat by putam Performance of the process for two times results in the incineration of the iron

एकत्रिंशविधिः ।

शिलागन्धार्कदुग्धाक्ताः स्वर्णाद्याः सर्वधातवः ।
म्रियन्ते द्वादशपुटैः गुरुवचो यथा ॥

Thirty first process.

All the metals including gold are incinerated by being subjected to heat for twelve times, after having been rubbed with manas-shila, gandhaka and milk of arka plant

द्वात्रिंशोविधिः ।

अथ मारण र्थे कथ्यन्ते भेषजानि च ।
तत्र गरि निका मुख्या क्वचित्प्रोक्ता महौषधिः ॥
क्वचित् श्रीति हरित्पर्णीति सा क्वचित् ।
दिव्यौषधीति पि क न्मतंकलम्बुका ॥

अन्यत्समानं चांगेर्य्याः कुठारच्छिन्नसंज्ञकम् ।
विकङ्कतं तृतीयं च चतुर्थं र रिषः ॥
पञ्चमं त्वचकं प्रोक्तं षष्ठमुक्तं मनःशि ।
हिङ्गुलं सप्तमं प्रोक्तमष्टमं स्वर्णमाक्षिकम् ॥
मिलितान्येतानि हन्युः पित्तं कफमसृग्दरम् ।
विविधां पाण्डुतां कण्डु वह्निमान्द्यं विवर्णताम् ॥

Thirty second process.

The following are some of the drugs having the property of killing iron —shalincha, kutharachhinna, bikankata, racta marisha, twachakam, manas-shila, hingula, and swarna makshika All of these combined have the property of curing pittam, kapha, menorrhagia, anemia, itches, loss of appetite, and loss of complexion. (Iron may be rubbed with all these drugs and heated by putam in the usual way)

पारदविहीनलौहभ ो दोषापनयनम् ।

लौहस्य नीरसं भ कन्यानीरेण मर्दयेत् ।
तृतीयांशरसेनैव गन्धेन द्विगुनेन च ॥
एवं यामद्वयं कुर्य्यात् ततो देयो पुटो लघुः ।
स्वाङ्गशीतं समुद्धार्यं सिद्धं भ सुध म् ॥

Removal of defects of iron incinerated without mercury.

Iron incinerated without mercury is to be rubbed with one third its weight of mercury, and sulphur,

double the quantity of mercury, for six hours with the juice of kanya. It is then to be heated by *Laghuputam*, before it is used as a drug

त्रयोस्त्रिंशोविधिः ।

(शुक्रलौहम् ।)

प्रणम्य शंकरं रुद्रं दण्डपाणिं महेश्वरम् ।
जीवितारोग्यमन्विच्छन्नादिमः पृच्छते गुरुम् ॥
शुक्राचार्य्यं द्विजश्रेष्ठं रसज्ञमौलि ् णम् ।
सुखोपायेन हे नाथ शास्त्रचराग्निभिर्वि ।
दुर्बलानां च भीरूणां चिकित्सां वक्तुमर्हसि ॥
तच्छिष्यवचनं श्रुत्वा लोकानां हित म्यया ।
अर्शसां नाशनं श्रेष्ठं भैषज्यमिदमीरितम् ॥
पाण्डिवज्रादिलौहानामादायान्यतमं शुभम् ।
कृत्वा नि मादौ च कुनट्या माक्षिकेण वा ॥
पत्तूरमूलकल्केन खरसेन दहेत् ततः ।
वह्नौ निक्षिप्य विधिवत् शालांगारेण निर्धमेत् ॥
ज्वा च तस्य बोद्धव्या त्रिफलाया रसेन च ।
ततो वि य गलितं शंकुनोर्द्धं समुत्क्षिपेत् ॥
त्रिफ रसे पूते तदाकृष्य तु निर्वपेत् ।
न सम्यग् गलि ं यत् तु तदेव विधिना पुनः ।
ध्मातं निर्वापयेत् तस्मिन् लौहं तत्त्रिफलारसे ॥

ततः संशोष्य विधिवत् चूर्णयेत् लौहभाजने ।
लौहेन च तथा पिंष्याद् दृशदि श्लक्ष्णचूर्णितम् ॥
धृत्वा लौहमये पात्रे मार्द्धे वा छिद्ररन्ध्रके ।
रसैः पं मं कृत्वा पचेत् तद्गोमयाग्निना ॥
पुटानि क्रमशो दद्यात् पृथगेषां विधानतः ।
त्रिफलार्द्रकभृंगानां केशराजस्य बुद्धिमान् ॥
कन्दमानकभ तवह्नीनां शूरणस्य च ।
हस्तिकर्णपलाशस्य कुलिशस्य तथैव च ॥*
पुटे पुटे चूर्णयित्वा लौहात् षोड़शिकं पलम् ।†
तन्मानं त्रिफ यांश्च पलेनाधिकमाहरेत् ॥
भागावशिष्टे तु रसे त ाः द्बुधः ।
अष्टौ पलानि दत्वा तु सर्पिषो लौहभाजने ।
तावेव लौहदर्व्या तु चालयेत् विधि र्वकम् ॥
ः पाकविधानज्ञः स्वच्छे चोर्द्ध्वे च सर्पिषि ।
मृदुमध्यादिभेदेन गृह्णी त् पाक ज्यतः ॥
त वि नेन कौतुकमङ्गलः ।
घृतभ्रामरसंयुक्तं लिहेदारक्तिक त् ॥

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* कुलिशः ख ः काणछिँड़ा इति ।
† त्रयोदशपलादूर्द्ध्वं लौहं न पाच्यम् ।

वर्द्धमानानुपानं च गव्यं क्षीरोत्तमं मतम् ।
गव्याभावेऽप्यजायाश्च स्निग्धवृष्यादिभोजनम् ॥
सद्योवह्निकरं चैव भस्मकं च नियच्छति ।
हन्ति वातं तथा पित्तं कुष्ठानि विषमज्वरम् ॥
गुल्माग्निपाण्डुरोगांश्च निद्रालस्यमरोचकम् ।
शूलं सपरिणामं च हं चाववाहकम् ॥
श्वयथुं रक्तस्रावं च दुर्णाम च विशेषतः ।
बलदं बृंहणं चैव कान्तिदं स्वरवर्द्धनम् ॥
लाघवं च गोज्ञं च नैरोग्यपुष्टिवर्द्ध ।
आयुष्यं श्रीकरं चैव वयस्तेजस्करं तथा ॥
सस्त्रीके पुत्र बलीपलितनाशनम् ।
दुर्णामारिरयं शु ग्रे वारसहस्र ः ।
निर्मूलं दह्यते शीघ्रं य तूलमिवाग्नि ॥

Thity third process

The sage, Shukra, who was a very great chemist, gave the following recipe to his disciple, Adima, for curing piles, etc., without the use of surgical instruments, etc :—A leaf of iron of a superior quality is to be freed, first of all, from rust by manas shila or makshika It is then to be smeared with a paste made of the roots of shalincha rubbed with the juice of the same, and burnt by means of a fire, made of charcoal prepared from the shal wood, and blown by

bellows. The intensity of the heat is to be tested by means of decoction of triphala. When sufficiently burnt, the iron is to be removed from the fire and immersed at once into the pure decoction of triphala. If it has not been completely incinerated, the iron is again to be burnt in the same way and immersed in the decoction of triphala It is then to be cleansed properly, and powdered in an iron mortar, by means of an iron rod, and then again finely powdered in a boat-shaped iron mortar by being rubbed by an iron pestle. The iron is then to be mixed with the juices of the under mentioned drugs in such a way as to resemble mire, and then heated over fire made of cowdung cakes in an iron cauldron or in an earthen pot sufficiently strong The iron is next to be subjected to putam after having been rubbed with the juice of each of the following separately, and in accordance with the order in which they have been given —triphala, ardraka, bhringaraja, kesharaja, bidari-kanda, mana, bhallataka, chitraka, shurana, hasti karna-palasha, and kulisha (khanda karna)

The iron is to be powdered each time after it is heated in the afore said way. Sixteen palas of this iron* is to be roasted in an iron cauldron with a decoction prepared from triphala, seventeen palas in weight, boiled with 136 palas of water which is to be reduced to seventeen palas In course of the roasting, eight palas of clarified butter is to be put into

* Iron is generally not to be prepared in quantities greater than 13 palas. The present case is an exception.

the iron which is to be turned all along with an iron ladle. The preparation is to be considered complete, as soon as the clarified butter is found to float on the surface in a clear state. It may however be still roasted according as it is intended to make it soft, harder, and very stiff (see process No 5 page 77)

The minimum dose of the iron, thus prepared, is one racti (i e , it may be increased up to six ractis a day) to be taken every morning with clarified butter and honey. After taking the medicine, the patient is to drink a little of cow's milk which is to be increased day by day In the absence of cow's milk, goat's milk may be used. The diet should be prepared with clarified butter and be of a nutritious character.

This medicine increases at once the power of digestion It cures bhasmakagni or an abnormally strong appetite, all the diseases due to an abnormal excess of vayu and pittam, leprosy, visama-jvaram (malaria, kalazar, etc), gulma, eye-diseases, anemia, excess of sleep, lethargy, aversion to food, all sorts of colic, prameha, dysentery, dropsy, bleeding, and especially piles of all sorts. It increases strength, nutrition, beauty, activity, longevity and voice. It is easily digested and is agreeable to the patient It increases procreative power and is a destroyer of senile decay It has been found to cure piles immediately.

चतुस्त्रिंशोविधिः ।

सुधा लौहम् ।

अभ्यवहृतपूर्वस्य गुल्मतृणवनस्पतेः ।
रसेन दिवसे लौहं मर्दयित्वा निशा पुटेत् ।
द्वादशवर्ष लं हि नित्यमेव समाचरेत् ।
अभ्यवहृतपूर्व हि रसं नित्यं प्रयोजयेत् ॥
पूर्वं संमर्दितं येन तद्रसं न पुनर्ददेत् ।
एतस्य सुधालौहस्य यवमात्रं प्रदापयेत् ॥
वृद्धमेव जराजीर्णं यतः स तरुणायते ।
दन्तानामु गो पुनः शुक्लकेशस्य कृष्णता ॥
दृढ़ता लोलचर्मणस्तस्यैव जायते पुनः ।
स्थितं फलोदरे पक्वतां हि विनाशयेत् ॥
लौहमे सुधातुल्यं मर्त्त्येच दीर्घायुः दम् ।
मात्रै हि ग्रहीतव्या चैकविंशस न्तरे ॥

Thirty-fourth process

(*Sudha Sagara Lauham.*)

Iron is to be rubbed during certain part of the day with the juice of the leaves of any tree, herb, or grass It is then to be dried by the sun and then heated by putam at night. This process is to be performed for 4380 days, juice of leaves of a new tree, herb, or grass being used each of

these days In other words, the iron is to be heated by putam for 4380 times, after having been rubbed each time with the juice of the leaves of a tree, herb, or grass, which is to be used in this way for one day only, so that 4380 different kinds of vegetable juices are required to complete the process. The tree, herb, or grass which has once been used must not be used for the second time. The iron, thus incinerated, has the property of re-juvenating an old man It causes the growth of new teeth in place of fallen ones, even in old age , turns grey hair black ; and makes the skin of an old man as tight as in youth Ripe fruit turns green, if a grain of this iron is kept for a few hours inside the former. One dose of this medicine is to be taken once in every 20 years

लौहभस्मनः परीक्षा ।

मध्वाज्य तल्लौहं च रूप्यसंपुटके क्षिपेत् ।
रुद्ध्वा ध्मातं ह्यम् रौप्यकं पूर्वमानकम् ।
तदा लौहं तं विद्यान्निरुत्थं यते च तत् ॥
रूप्यस्य पूर्व नस्य ह्रासेन ज्ञायतेऽमृतम् ।
उत्थितं च विजानीयान् मारयेत् तत् पुनर्भिषक् ॥

Test of incinerated iron.

Incinerated iron, mixed with honey and clarified butter, is to be confined in a silver samputam, and subjected to heat by putam. If in so doing, the quantity of the silver does not undergo any diminu-

tion, the ashes of the iron are to be considered actually incinerated and incapable of being restored to their original condition of un-incinerated iron. In case, the silver is found short of the original quantity, the iron is to be considered un-incinerated and capable of being restored to its original condition. In that case, it is to be incinerated again.

उत्थितलौहस्य निरुत्थीकरणम् ।

(१)

अनिरुत्थं मृतं लौहं पक्तव्यं मि श्रकैः ।
यद्येवं न्निरुत्थश्च सेव्यं वारितरं हि तत् ॥
धु सर्पि था गुंजा टङ्कनं गुग्गुलु था ।
मि श्रकमेतत् तु गणितं धातुमेलने ॥

How to deprive the ashes of iron of the power of being restored to their original condition

(1)

Ashes of iron, which can be restored to their original state, should be brought to a state in which it is impossible for them to be so restored, and this may be done, if the ashes are roasted with the panchamritam, *viz* honey, clarified butter, gunja, tankanam, and guggulu.

(२)

गोघृतं गन्धकं लौहं खल्वे विमर्द ।
दिनैकं कन्य द्रावै । गजपुटे पचेत् ।
इत्येवं सर्व्वलोहानां व्यं स्यान्निरुत्थितम् ॥

(2)

Ashes of iron are to be rubbed in a hot mortar with cow's ghee, sulphur, and juice of kanya for one day and then heated by *Gajaputam*, resulting in the ashes being incapable of being restored to the state of original iron

अथ मृतलौहस्यामृतीकरणम् ।

(१)

तो ष्ट गशेषेण त्रि पलप म् ।
घृतं क्वाथस्य तुल्यं स्याच् चूर्णं तुल्यं मृतायसः ॥
प येत् ता त्रे च लौहदर्व्या विचालयेत् ।
मृद्वग्नि पचेत् तावद् यावत् सर्व्वं हि जीर्य्यते ॥
लौ त्या शिवा योज्या सु मेव तारयेत् ।
यो हमिदं ख्यातं मृ लौहं महामृतम् ॥

Nectarization of incinerated iron.

(1)

In a copper cauldron, heated by a mild fire, five palas of iron are to be roasted with an equal quantity of clarified butter and the same quantity of decoction of triphala (prepared by boiling five palas of triphala fruits with 40 palas of water, reduced by heating to 5 palas), the whole thing being turned by an iron ladle till the iron is completely roasted. It is then to be again roasted with an equal quantity of powdered haritaki.

(२)

गुड़स्य कुड़वे पक्वं लौहभस्म पलान्वितम् ।
कोलप्रमानं रोगेषु तच्च योगेन योजयेत् ॥

(2)

One pala of incinerated iron is to be mixed by heat with four palas of iron and made into pills of the size of a plum fruit One such pill may be used in diseases with suitable accompaniments

(३)

घृतं तुल्यं मृतं लौहं लौहपात्रे स्थितं पचेत् ।
जीर्णे घृते समादाय योगवाहं प्रयोजयेत् ॥

(3)

Equal quantities of incinerated iron and clarified butter are to be roasted in an iron pot till the latter is dried up altogether The iron, thus prepared, is a joga-bahi, *i e* a thing which increases the property of any other thing with which it is mixed

रसायनप्रयोगे लौहस्य संस्कारविशेषः ।

(४)

घृतमधुगुञ्जाटंकसमं लौहभस्म मर्द्दयेच्च विचक्षणः ।
धमेद्दृढो पुनर्लौहं तदा योज्यं रसायने ॥

(4)

Ashes of iron become especially fit for being used in medicines meant for preventing and curing senility, if they are rubbed with clarified butter, honey, gunja, and tankanam.

(५)

लौहारकूटताम्रकटाहे दृढमृन्मये वा प्रणम्य शिवम् ।
भस्मायः पचेदचपलः काष्ठेन्धनवह्निना मृदुना ॥
निक्षिप्य त्रिफ   जलमृदितं यत्तद् घृतञ्च दुग्धञ्च ।
स   ल्य लौहमय्या दर्व्या लग्नं समुत्पाट्य ॥
मृदुमध्य   रभावैः पाकस्त्रिविधोऽत्र वक्ष्यते पुंसाम् ।
पित्तसमीरणश्लेष्मप्रकृतीनां मध्यमस्य समः ॥
त्रिविधोऽपि पाक ईदृक् सर्वेषां गुणकृदेव न तु विफलः ।
प्रकृतिविशेषे सूक्ष्मौ गुणदोषौ ज   तीत्यल्पम् ॥
अभ्यक्तदर्वि   लौहं सुखदुः   खलनयोगि मृदुमध्यम् ।
उज्झितदर्वि खरं परिभाषन्ते केचिदाचार्य्याः ।
अन्ये विहीनदर्वीप्रले   ीषत् खर   ति ब्रुवते ॥
मृदुमध्यमर्द्धचूर्णं सिकतापुञ्जोपमं   खरम् ।
विज्ञाय पाकमेवं द्रा   तार्य्यं क्षितौ क्षणान् कियतः ॥
वि   म्य तत्र लौहे त्रि   लादेः प्रक्षिपेच्च चूर्णम् ।
यदि कर्पूरप्राप्तिर्भवति ततो विगलिते तदुष्णत्वे
चूर्णीकृतमनुरूपं क्षिपेत् तत्तु प्रयत्नतः ।
तदश्मसारं सुचिरं घृतस्थितं
गोदोहनादिभा   लौहाभावे संरक्षणीयम् ।

यदि तु परिप्लुतिहेतौ घृतमोक्तेताधिकं ततोऽन्यस्मिन्
भाण्डे निधाय रक्षेद् भाव्युपयोगो ह्यनेन महान् ॥
अयसि विरुक्षीभूते स्नेहरि लाघ्रू संपाद्यः ।
एतत्तत्तो गुणोत्तरमित्यमुनैव स्नेहनीयं तत् ।
अत्यन्तकफप्रकृतेर्भक्षणमयसोऽमुनैव शंसन्ति ।
केवलमपीद‍ शितं जनयत्ययसोगुणान् कियतः ॥
अथवा वर्णितविधिमारितं कृष्णाभ्रमादाय ।
लौहचूर्णचतुर्थार्द्धसमद्वित्रिचतुःपञ्चगुणभागम् ॥
प्रक्षिप्यायः प्रागवत् पचेदुभाभ्यां भवेद् रजोयावत् ।
तन्मानानुकृतेः स्मृतितः स्यात् त्रि ादिद्रव्य-
परि णाम् ।
इदमाप्यायकमिदमतिपित्तनुदिदमेव कान्तिवल-
जननम् ।
स्तभ्नाति तृटक्षुधौ परमधिकाधि । । युक्तम् ।
नानाविधरुक् शान्त्यै कान्त्यै पुष्ट्यै च शिवं
समभ्यर्च्य ।
सुविशुद्धेऽहनि पुण्ये तदमृतमादाय लौहाख्यम् ।
दशकृष्णलपरिमाणं शक्तिवयोभेदमाकलय्य पुनः ।
सममस्तृणामलपात्रे लोहे लौहेन मर्दयेच्च पुनः ।
दत्त्वा मध्वनुरूपं तदनु घृतं योजय धिकम् ॥

ओँ अमृतेन्द्रं भक्षयामि नमः इति
मन्त्रमुच्चार्य्य भक्षनीयं तत्।
जग्ध्वा तदमृतसारं नीरं वा क्षीरमेवानुपिबेत्।
कान्तक्रामकम सर्जरसं पिबेदनु।
आचम्य च म्बूलं घनसारसहितमुपयोज्यम्॥

(5)

Incinerated iron is to be placed with decoction of triphala, milk, and clarified butter, in a cauldron made of iron, brass or copper, heated by a very mild fire made of wood, an iron ladle being used for turning the contents of the cauldron every now and then This preparation may be of three kinds, *viz* mild, medium, and dry They are especially beneficial to patients having an excess of pittam, vayu, and kapha, respectively One having an equilibrium of the doshas (vayu, pittam, and kapha) should use a preparation which is also neither mild nor dry *i e.* of medium softness Each of these three different kinds of preparations, although especially efficacious to patients of especial temperaments, is beneficial, at least to a certain extent, to patients in general, irrespective of temperaments. A mild preparation in this case means that in which the iron sticking to the ladle can be separated easily, a medium preparation is that in which the iron paste sticking to the ladle can be separated with difficulty; a dry preparation in this case is that in which the

iron paste is so dried as not to attach itself to the ladle altogether or to do it only to a slight extent The mild and the medium are partially powdered, whereas the dry preparation of iron is in a state of sands On the completion of the preparation of the iron the cauldron is to be got down quickly from the oven, and after a few minutes, powdered triphala, etc may be mixed with the product Some camphor may also be mixed with it, when the product is sufficiently cooled. The iron, thus prepared, is to be very finely powdered, and kept with a sufficient quantity of clarified butter in an iron pot or in an earthen vessel previously used for keeping milk In case, the clarified butter is found to be much in excess of the quantity required to keep the iron soft, a quantity of the former may be taken out and kept in a separate pot This ghee is very useful. It may be used to soften the iron preparation in case it loses its softness. A patient having an abnormal excess of kapha should take iron mixed with this ghee, which, even if taken alone, produces a part of the effects which are produced by iron prepared in the aforesaid way

The incinerated iron may also be roasted in the afore-said manner, after having been mixed with decoction of triphala, clarified butter, milk, and one fourth or half or an equal or double or triple or four fold or five fold its quantity of powdered black mica, duly incinerated (see vol. II). The powder, thus prepared, is soothing to the system, destroyer of all abnormal excess of pittam, and is a giver of strength

and beauty. If taken in doses gradually increased to a large quantity every day, it does away with thirst and hunger altogether without impairing the strength and longevity of the latter. After making due obeisance to God, the medicine should be begun to be taken on an auspicious day, in doses of ten ractis a day (a dose which is modifiable having regard to the age and strength of the patient), which should be rubbed with honey and ghee in an iron mortar by an iron rod The following mantra is to be uttered at the time of taking the medicine —"Om amritendra bhakshayami nama swaha." After taking the medicine, a little of water or milk is to be taken A little after that, juice or decoction of nagaramusta, mixed with pure rala or exudation of a sarja tree, should be taken

लौहादीनां सेवनमात्रा ।

गुञ्ज त्रं रसेन् हे गो भ च भक्षयेत् ।
तारं त्रिगुञ्जकं सेव्यं म्र द्विगुञ्जकम् ॥
लौहाभ्रनागवङ्गानां यशोदस्य तथान् ाम् ।
धातूनां ते त्रा षड्गु प्रमि ख ॥
कांस्यपित्तलयो भक्षयेत् ताम्रभस्मवत् ।
यवद्वयमितं लकं यवसप्तकम् ।
ततो चा भिषग् दद्यान् मा वित्
चे : ॥

Doses

The following are the doses in which merc etc are generally given —mercury, one gunja a d. incinerated gold—one gunja a day, incinera silver, 3 gunjas a day, incinerated copper, 2 gun a day, iron, mica, lead, tin, zinc, and other met (each incinerated), six gunjas a day; incinera bell-metal and brass—two gunjas a day; incinera diamond, 2 javas a day, purified or incinerated ha talam, seven javas a day In especial cases, t physicians, having regard to the age and constituti of the patient, should use their own discretion in t matter of doses

लौहभस्मभक्षणमंत्रः ।

ॐ अमृतेन्द्रं भक्षयामि नमः स्वाहा ।

लौहभस्मानुपानम् ।

(१)

शूले हिङ्गु घृतान्वितं मधुयुतं कृष्णा पुराणज्वरे ।
वाते साज्यरसोनकः श्वसनके चौद्रान्वितं त्र्यूषणम् ।
शीते व्यालतदलं समरिचं मेहे वरा सोप ।
दोषाणां त्रितयेऽनुपानमुदितं सचौद्रमार्द्रोदकम् ॥
घृतेन वातके देयं मधुना पित्तजे ज्वरे ।
श्लेष्मपित्ते चाद्रकेन निगु शीतवातके ॥
शुण्ठीं वाते रि ां पित्ते कृष्णां प्रदापयेत् ।
सन्धिरोगे त्रिजातकं प्रोक्तं लौहा पानकम् ॥

Anupanas or accompaniments of iron

(1)

Incinerated iron is to be taken with hingu (purified by being fried with ghee) and honey in colic, with powdered pippali in chronic fever (such as malaria, kalazar, etc), with ghee and garlic juice in rheumatism, paralysis, and other diseases due to an excess of vayu, with honey and trikatu in asthma, with the juice of brischikali mixed with powdered maricha in coldness, with triphala and sugar-candy in spermatorrhoea, with honey and ginger juice in diseases due to an excess of the three doshas, with clarified butter in fever due to an excess of vayu, with honey only in fever due to an excess of pittam; with the juice of ardraka in diseases due to an excess of kapha and pittam, with the juice of nirgundi in shivering due to an excess of vayu, with powdered shunthi in diseases due to an excess of vayu; with sugar in pittam, with pippali in kapha; and with trijatakam in diseases affecting bone joints

Foot note —The general rule with regard to the taking of a mineral drug, either in the form of powdered ashes or in the form of a pill, is this — It is first of all to be rubbed in a small stone mortar with a little of honey (even when there is no mention of it, unless it is explicitly prohibited or considered harmful in a particular case) and then again rubbed with the anupanam or accompaniment prescribed. When the drug is thus sufficiently rubbed, it is to be taken by licking or drinking, as the case may be

(२)

वल्लं वल्लार्द्धमानं च यथायोगेन योजयेत् ।
वरया सह लौहं हि वलीपलितनाशनम् ॥
कज्ज्वलीमधुकृष्णाभ्यां श्लेष्मरोगनिवारणम् ।
खण्डया सचतुर्जातं रक्तपित्तविनाशनम् ॥
पुनर्णवायुतक्षीरैर्बलवृद्धिकरं परम् ।
पुनर्णवारसेनैव पाण्डुरोगनिसूदनम् ॥
सनिशं भसितं लौहं पिप्पल्या मधुना सह ।
विंशतिं च प्रमेहानां नाशयेन् नात्र संशयः ॥

(2)

Incinerated iron, in doses of four and half ractis, is to be taken with the following anupanams:—with triphala in senile decay; with kajvali (equal quantity of sulphur and mercury, turned into a black powder), honey, and pippali in diseases due to an excess of phlegm; with khanda gurh mixed with chaturjata in ractapittam; with cow's milk mixed with the juice of punarnava for increasing strength and vigour; with the juice of punarnava in anemia; with the juice of haridra and powdered pippali, mixed with honey, in 20 different kinds of spermatorrhoea including gonorrhoea.

(३)

शिलाजतुयुतं लौहं मूत्रकृच्छ्रनिवारणम् ।
वासकपिप्पलीद्राक्षालौहानां मधुना सह ॥

गुटिकां भक्षयेत् प्रातः पञ्चकासनिवृत्तये ।
ताम्बुलरससंयुक्तं भक्षयेल् लौहमुत्तमम् ॥
अग्निदीप्तिकरं वृष्यं देहकान्तिविवर्द्धनम् ।
त्रिफलामधुसंयुक्तं सर्व्वरोगेषु योजयेत् ॥
पथ्यासितालौहभस्म यथोक्तगुणदं भवेत् ।
वि त्र बहुनोक्तेन देहलोहकरं परम् ॥

(3)

Incinerated iron may be used with shilajatu in gleet and stricture, with basaka, pippali, draksha, and honey (all rubbed together) in all sorts of cough, with the juice of betel leaves for increasing the power of digestion, nutrition, and physical beauty, with triphala and honey in all sorts of diseases, with triphala and sugar for increase of strength.

लौहसेवने पथ्यम् ।

लावकस्तित्तिरिर्गोधा मयूर कादयः ।
वटकः कलविंकश्च वर्त्तिश्च हरितालकः ॥*
श् कश्च वो वर्त्तविस्किरकादयः ।
हितकरमृगादीनां मांसं जांगलकं शुभम् ॥
मद्गुरो रोहितः श्रेष्ठः शकुलश्च विशेषतः ।
मत्स्यराजा इमे प्रोक्ताः हितमत्स्याश्च ये नवाः ।

---

* कलवि कः ।

प्रशस्तं पापिताफलं पटोलं डिंडिसी तथा ।
प्रलम्बाभीरुवेत्राग्रं ताड़कं तराडुलीयकम् ॥
वास्तुकं धान्यशाकं च स्वर्णालुकपुनर्णवम् ।
नारिकेलं च खर्ज्जुरं दाड़िमं लवलीफलम् ॥
शृंगाटकं च पक्वाम्रं द्राक्षालताफलानि च ।
जातीकोषं लवंगं च पूगं ताम्बूलपत्रकम् ॥

Dietary

The following dietary is salutary for the persc who takes iron —
laba (a migratory bird—a sort of a quail), titti (the francoline partridge), godha (iguana), peacocl hare, bataka (a bird, popularly called, batkal kalabinka or chataka (sparrow), barti (a bird popularly called, 'bater'), haritala (green partridge) hawk, big laba, all sorts of deer, fresh and wholesome fish, such as, madgura, rohita, and shakula vegetables like papita, patola, dindisi, eatable sprou arising inside a palm fruit, shatavari, soft blossoms of a betra plant, the soft portion inside the uppermost part of a palm tree, tanduliyaka, bastu, leaves of dhanya plant, karnalu, punarnava, cocoanut, date fruit, pomegranates, lavali fruit, shringataka, ripe and sweet mango, grapes, jatiphala, lavanga, betel-nut, and betel leaves

लौहसेवने अपथ्यम् ।

(१)

नाश्नीयाल्लकुचं कोलं कर्कन्धुं वदराणि च ।
जम्बीरं बीजपूरञ्च करमर्द्दकतिन्तिड़ीम् ॥
नूपानि च मांसानि क्रकरं पुण्ड्रकादिकं ।
हंससारसदात्युहमद्गुकाकवलाहकान् ॥
माषकन्द िराणि च ं च म् ।
कुष्मा कंच कर्कोटिं केवुकञ्च विशेषतः ॥
कदलीं लशाकञ्च कशेरुं कर्कटीं तथा ।
विदलानि च सर्व्वाणि ककारादींश्च वर्ज्जयेत् ॥

Prohibitions.

(1)

The following are to be avoided dy one who takes iron —lakucha, kola, karkandhu, badara, lemon fruit, vijapura, karamarda, tintiri, meat of animals other than those enumerated in page 84, karkata bird, pundraka, goose, swan, water crow, madgu, crow, crane, masha gram, tubers of all kinds (such as potato, radish, onion, etc.), karira (shoot of a bamboo, and a thorny plant of that name), chanaka gram, kadamba fruit, kushmanda, karkoti, kebuka, banana fruit, pot herbs, kasheru, karkati, and all sorts of pulses.

(२)

कुष्माण्डं तिलतैलं च रसोनं राजिकां तथा ।
मद्यमम्लरसं चैव त्यजेत् लौहस्य सेवकः ॥
अहितमत्स्यवार्त्ताकं माषं च कारवेल्लकम् ।
व्यायामं र र्व्वसन्धानमासवञ्च सदा त्यजेत् ॥
अत्युपवेशनं जह्यात् श्रमं चैवातिभाषणम् ।
नपानाशनादीनामाधिक्यं शीतवातयोः ॥
अकालभोजनञ्चैव विरुद्धाशनमेव हि ।
दिवास्वापं तथा नक्तं जागरणं सदा त्यजेत् ॥
वातपित्तकृतः सर्वान् कट्वम्लतिक्ततुवरान् ।
तत्क्षणनाशहेतूंश्च मैथुनकोपसं न् ।
मारकं रसलोहानां सर्व्वथा हि परित्यजेत् ॥

(2)

One who takes iron should avoid the following — kushmanda, tila oil, rasona, raji, wine, sour things, bad fish, jeera, vartaku, masha gram, karbella, physical exercise, all sorts of fermented things, asava, sitting for a long time, physical exertion, excess of talking, excess of bathing, drinking, eating, and exposure to coldness and wind, eating at unusual times, eating articles of food stuff which, if taken with the same meal produce injurious effects (such as milk with fish, meat, or sours); sleeping in day time, keeping late

hours at night, all things having the property of increasing vayu and pittam, things which are pungent, sour, bitter, and astringent, sexual indulgence; anger, physical exertion, and all things calculated to kill mercury and the metals

लोहव्यापन्नाशनं चूर्णम् ।

जीर्णे लोहे तु पतति चूर्णं भुञ्जीत सिद्धिसाराख्यम् ।
लोहव्यापन् नाशयति तद् वर्द्धयति जाठरं वह्निम् ॥

Remedy of evils due to irregularities in taking metals

When incinerated iron (or any other metal) is digested in the stomach, a dose of the powder named siddhisara (described below) should be taken in order to counteract any evil arising out of irregularities committed while taking the iron (or any other metallic preparation)

सिद्धिसारः ।

पथ्यासैन्धवशुण्ठीमागधिकानां पृथक् समं भागम् ।
त्रिवृताभागौ निम्बुभाव्यं स्यात् सिद्धिसाराख्यम् ॥
काले मलप्रवृत्तिर्लाघवमुदरे विशुद्धिरुद्गारे ।
अङ्गेषु नावसादो मनःप्रसादोऽस्य परिपाके ।
रद्भिर्द्वादशकादूर्द्धं वृद्धिरस्य भयप्रदा ॥

Siddhi sara

Powders of haritaki, saindhava, shunthi, white jeera—each equal in quantity, and trivrit, double the quantity of each of the above-mentioned, should be subjected to bhavana with the juice of lemon. Dose—1 racti, to be gradually increased to 12 ractis, which should not exceed on any account. This medicine causes movement of the bowels in due time, lightness of the stomach, freedom of the belching (of wind from the stomach) from acidity and toxin, comforts of the limbs, and cheerfulness of the mind

अपक्वलौहस्य अवगुणः ।

अल्पौषधिस्तोकपुटहीनगन्धकपारदैः ।
पक्वं हि लौहजं चूर्णमायुःक्षयकरं परम् ॥

Evil effects of taking iron not properly incinerated.

Iron roasted with too little in quantity of the liquids prescribed, or by a fewer than the prescribed number of putams, or by being rubbed with sulphur or mercury of inferior quality (i e not properly purified), is injurious, and serves to shorten the longevity of the man who takes it.

अशुद्धलौहसेवनजनितविकारानां शान्तिः ।

(१)

मुनिरसपिष्ठविड़ङ्गं मुनिरसलीढं चिरस्थितं घर्मे ।
द्रवयति लौहदोषान् वह्निं नवनीतपिण्डमिव ॥

Remedy of the evil effects of iron not properly incinerated.

(1)

Evil effects of impure iron are removed, if one takes biranga, previously rubbed with the juice of vasaka, and exposed for a long time to the heat of the sun, mixed with a sufficient quantity of the juice of vasaka

(२)

आरग्   मज्जया रेचनं कीटशान्तये ।
भ ल्प्यतिसारश्च पीत्वा दुग्धं तु तं जयेत् ॥
यदि लौहविकारेण उदरे शूलसंभवः ।
तदार्द्रकविड़ङ्गं तु विड़ङ्गरससंयुतम् ।
पिबेद्वा खण्ड   धुना एलाचूर्णं दिनत्रयम् ॥

(2)

Purgation by the oily part of aragbadha is to be resorted to for the purpose of destroying worms (growing from the use of iron, not incinerated with mercury) In case of diarrhoea being caused by the purgation, it is to be cured by the drinking of milk Colic in the stomach, due to use of bad iron, may be cured by using ginger and biranga, taken for 3 days with the juice of biranga, or by taking for 3 days powdered ela mixed with khanda gurh and honey

लौहस्य द्रावणम् ।

(१)

देवदालीरसै र्भाव्यं गन्धकं दिनसप्तकम् । *
तेन प्रतापमात्रेण लौहं तिष्ठति सूतवत् ॥

Liquefaction of iron

(1)

Sulphur is to be subjected to bhavana with the juice of devadali for seven days. This sulphur, thrown upon iron, melted by fire, makes the iron resemble mercury (even after the heat is discontinued)

(२)

सुरदालिभवं भस्म नरमूत्रेण गालितम् ।
त्रिसप्तवारं तत्क्षारं वापेत् कान्ते द्रुतिर्भवेत् ॥

(2)

A kshara or alkali is to be prepared by dissolving the ashes of devadali with human urine, filtering it for 21 times and then drying it up by heat A little of this alkali, if thrown upon melted kanta iron, keeps the latter in a liquefied state even after the heat is removed

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* द्रुते द्रव्यान्तरक्षेपो लौहादौ क्रियते हि यत् ।
स प्रवापः प्रतीवापस्तदेवाच्छादनं मतम् ॥

(३)

गन्धकं न्तपाषाणं चूर्णयित्वा समं समम् ।
द्रुते लौहे प्रतीवापो देयो लौहाष्टकं द्रवेत् ॥

(3)

Eight different kinds of iron can be kept in a state of liquefaction, even after the removal of heat, if equal quantities of powdered sulphur and kanta iron are put upon them, while in a melted condition.

अथ मण्डूरम् (लौहकिट्टम्) ।

सिंहानिका च सिंहानं लौहकिट्टं च मण्डूरम् ।
प्रतापिताद् घनाहताल् लौहाच् च्युतं मलं हि तत् ॥
यल्लौहे यद्गुणं प्रोक्तं तत् किट्टे तद्गुणांशकम् ।
त्   त्र मण्डूरं रोगशान्त्यै   गो   त् ॥
ि द्दशगुणं मुण्डं   त् तीक्ष्णं शतोन्मितम् ।
तीक्ष्णाल् लक्षगुणं न्तं भक्षणात् कुरुते नृणाम् ॥
तस् त् कान्तं सदा सेव्यं जराव्याधिहरं परम् ।
कान्ताभावे प्रदातव्यं स्वर्णं वा रूप्यमेव वा ।

Mandura.

If iron is heated red hot, and hammered, small pieces throw themselves out of it, and scatter themselves all round These particles of iron are called mandura The mandura of a particular

iron possesses a part of the properties of the latter. Mandura also may therefore be used in medicines. Munda iron is ten times as efficacious as mandura. Tikshna iron is hundred times as efficacious as munda, and kanta is hundred thousand times as efficacious as tikshna. Kanta iron should therefore be used for the purpose of destroying diseases and senility. In the absence of kanta iron, gold or silver is to serve as a substitute.

मण्डूरस्य भेदाः ।

ईषच्छवि गुरु स्निग्धं मुण्डकिट्टं जगुर्बुधाः ।
भिन्नांजनप्रभं यत् तु विशेषाद् गुरु निर्व्रणम् ॥
निः कोटरं च विज्ञेयं तीक्ष्णकिट्टं मनीषिभिः ।
पिंगं रुक्षं गुरुतरं यदर्धमवकोटरम् ॥
छिन्ने च रजतच्छायं तत् किट्टं कान्तलौहजम् ॥

Varieties of mandura.

Mandura from munda iron is slightly coloured, heavy, and soft; that from tikshna iron is like a collyrium of mixed ingredients, is much heavy, and has a smooth surface. The mandura which comes out of kanta iron is of grey colour, coarse, heavier than other manduras, with half its surface devoid of hollows, and it presents a sectional surface as glazy as silver, when cut into two pieces.

मण्डूरस्य व्यवहारयोग्यता।

(१)

अकोटरं गुरु स्निग्धं दृढं शतसमाधिकम्।
चिरोत्थितजनस्थाने संस्थितं किट्टमाहरेत्॥

Fitness of mandura for use in medicines.

(1)

The mandura which should be used in medicines should be of the following description —It is devoid of hollows, heavy, soothing, strong, of more than a hundred years' standing, and collected from an old village

(२)

शतोर्द्ध मुत्तमं किट्टं मध्यञ्चाशीतिवार्षिकम्।
अधमं षष्टिवर्षीयं ततोहीनं विषोपमम्॥

(2)

Mandura of over hundred years old is the best, that of over 80 years is of moderate efficacy, and that of sixty years' standing is the least efficacious. Mandura less old than the last-mentioned is like poison and should be avoided for medicinal purposes

मण्डूर शोधनमारणम्।

प्रथमोविधिः।

अक्षाङ्गारैर्धमेत् किट्टं लौहजं तद् गवां जले।
निक्षिपेदक्षपात्रस्थे सप्तवारं प्रयत्नतः॥
चूर्णयित्वा ततः क्वाथैर्द्विगुणैस्त्रिफलोद्भवैः॥
आलोड्य च धमेद् वह्नौ मण्डूरं जायते वरम्॥

Incineration of mandura

First process.

Manduram is to be heated by means of char-coal prepared from bibhitaki wood, and then immersed in cow's urine contained in a pot made of the same wood It is then to be powdered very fine and roasted with double its quantity of decoction of triphala (by being boiled in a cauldron over fire)

द्वितीयोविधिः ।

गोमूत्रैस्त्रिफला क्वाथ्या तत् थैः सेचयेच्छनैः ।
लौहकिट्टं सुतप्तं तु यावज्जीर्यति तत् स्वयम् ॥

Second process

A decoction of triphala is to be prepared by boiling it with cow's urine, Mandura, heated red hot, is to be immersed in this liquid Repetition of this process leads to the incineration of the mandura

तृतीयोविधिः ।

मण्डूरं चूर्णितं श्लक्ष्णं गोमूत्रेऽष्टगुणे पचेत् ।
चूर्णितं पुनरेव तत् स्व येषु नियो त् ॥

Third process

Mandura is to be powdered very fine and then roasted with eight times its weight of cow's urine. When sufficiently roasted, it is to be powdered again and used where necessary.

मण्डूरस्य व्यवहारः ।

त्र्यूषणं त्रिफला मुस्ता विडङ्गं चव्यचित्रकम् ।
दार्वी ग्रन्थि देवदारु तुल्यं तुल्यं विचूर्ण ॥

प्रत्येकं किट्टसंतुल्यं तेन सह विमिश्रयेत् ।
भक्षयेत् कोलमात्रं तु जीर्णान्ते तक्रभोजनम् ॥
पाण्डुशोफहलीमं च उरुस्तम्भं च कामलाम् ।
अर्शांसि हन्ति सत्वरं हंसमण्डूरकाह्वयम् ॥

Use of mandura

Incinerated mandura, mixed with an equal quantity of each of the following, and taken in doses of one kola (all combined) a day, cures pandu (anemia), shotha (dropsy), halima (jaundice of the worst type), urustambha (carbuncle in the thighs), kamala (jaundice), and arsha (piles) —trikatu, triphala, musta, biranga, chavya, chitraka, darvi, granthi, and deva-daru Mandura, thus used, is called the hansa mandura Butter-milk should be drunk after the medicine appears to have been digested in the stomach

ूरस्य द्रावणम् ।

निरसपिष्टं विड़ंगं नि गिढ़ं चिरस्थितं घर्म्मे ।
द्र ति लौहवि वह्निर्नवनीतपि मिव ॥

Liquefaction of mandura

Rust of iron is liquefied and assumes the shape of butter, if it is immersed in a liquid paste, made of biranga pestled with the juice of agastya and dissolved in the same liquid, and exposed for a long time to the heat of the sun

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द्वितीयोऽध्यायः ।

CHAPTER II.

अथ यशोदम् ।

रसकस्य विजानीयाद् यशोदं सत्वमेव हि । *
तदेव खलु वै नां यशोदं धीमतां परम् ॥

Jasoda (Zinc)

Jasoda is the essence of rasaka or calamine (see page 125, Vol II) Literally, it means a thing which helps the earning of fame. It is really a thing which enables a learned physician to earn reputation.

अस्य गुणाः ।

यशोदं तुवरं ति शीतलं कफपित्तहृत् ।
चक्षुष्यं परमं मेहपा श्वासविनाशनम् ॥

Its properties

Jasoda is astringent, bitter, cool, pacifier of kapha and pittma, beneficial to eye-sight, and destroyer of spermatorrhoea, gonorrhoea, jaundice, and asthma.

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* द्वितीयखण्डे १२५ पृष्ठं द्रष्टव्यम् ।

यशोदस्य शोधनम् ।

प्रथमोविधिः ।

य ोदमग्निविद्रुतं दुग्धमध्ये तु येत् ।
एकविंशतिवारैश्च ततोऽयं शुद्धिमाप्नुयात् ॥

Purification of Jasoda.

First process.

Jasoda is purified, if it is immersed into milk for twenty one times, after it is melted each time.

द्वितीयोविधिः ।

द्वितीयखण्डे २४२ पृष्ठे स्वर्णशो करणे तृतीयोविधिः द्रष्टव्यः ।

Second process

See Process No 3, page 243 Vol II

यशोदस्य मारणम् ।

प्रथमोविधिः ।

द्वितीयखण्डे २४७ पृष्ठे स्वर्णमारणप्रकरणे चतुर्थोविधि द्रष्टव्यः ।

Incineration of Jasoda.

First process.

See Process No 4, page 247, Vol II

द्वितीयोविधिः ।

यशोदं लौहजे पात्रे द्रावयित्वा पुनर्धमेत् ।
तत ऽस्मिन् क्षिपेन् नि बपत्रमेकं तदुपरि ॥
घर्षणा ोहदण्डेन वह्निरुत्तिष्ठति ध्रुवम् ।
य भवेद् घृष्टिभर्म ा था तथा ॥

भस्मीभूतं पृथक् पुनः ग घर्षयेत् ।
प्रष्टव्य तस्तावद् यावत् न हन्यते ।
लितं तद् यथाविधिपत्रभूत्या विमुच्यते ॥
नेत्रयोगेषु सर्वेषु भस्मीभूतमिदं शुभम् ।
भक्षणे न प्रशस्तं तदंजनार्थं प्रयोजयेत् ॥

Second process.

Zinc is to be kept in an iron pot over fire, and heated highly, even after it is melted. A leaf of nimba tree is then to be thrown upon the molten zinc, which is to be rubbed with the leaf by means of an iron rod. This is followed by the rise of flames upon the molten zinc and the incineration of a part of the metal at the spot where the rubbing is carried on. Fresh nimba leaves are to be applied and the rubbing is to be continued. Wherever there is rubbing, there is incineration The part which is incinerated may be sifted out and the remaining part of the zinc again incinerated in the same way. The powder, thus prepared, should be freed from the ashes of the nimba leaves by being washed off with water. Zinc, thus incinerated, is found to be beneficial to eye-sight and may be used as a collyrium. It is not commendable for internal use

तृतीयोविधिः ।

यशोदं तच्चतुर्थांशपारदगन्ध न्वितम् ।
मर्दयेत् खल्वके सम्य कन्यानिम्बुरसैः पृथक् ॥

लेपयेत् तेन पत्राणि गजाह्वे पाचयेत् पुटे ।
एकेनैव पुटेनैवं यशोदं म्रियते खलु ॥

Third process.

Fine leaves of zinc are incinerated, if they are subjected to heat by Gajaputam for once only, after having been smeared with a paste made of kajvali (mercury and sulphur, combined in equal parts), one fourth in quantity of the zinc, rubbed separately with the juices of kanya and nimbu (lemon)

यशोदमारणस्य विध्यन्तराणि ।

ग   प्रकारेण यशोदमपि मार्य्यते ।
तयोरेव प्रकारेण शो[illegible]पि हि तत् ॥*

Zinc may also be purified and incinerated in the same manner as vanga (tin) and sisaka (lead) *.

यशोदस्यानुपानानि ।

खर्जुरतंडुलीहिमै रक्तातिसारनाशकः ।*
विनाशयेज् ज्वरं चैव यशोदं मायुजं खलु ॥
नि   भ्यां युतं शीतज्वरं   त् ।
शर्कराजाजिसंयुक्तमति   रं वमिं त   ॥
पुराणघृतसंयु   नेत्र[illegible]रं परम् ॥

---

* अग्रे वङ्गनागप्रकरणं   ।

* See page 102

यशोदं प्रमेहं हन्ति ताम्बूलस्वरसेन हि ।
अग्निमन्थेनाग्निकरं त्रि गन्धै स्त्रिदोषहृत ॥

Accompaniments of Jasoda.

Jasoda cures dysentery, if taken with a *hima kashayam* (decoction prepared without the application of heat) of kharjura (dates), and tanduliya roots. If taken in this way, it also cures fever due to an excess of pittam. It cures fever accompanied with a sensation of coldness, if taken with jamani and lavanga In diarrhoea and vomiting it should be used with sugar and jeera It is beneficial to eye-sight, if used as a collyrium with old ghee (clarified butter) It cures spermatorrhoea and gonorrhoea, if taken with the juice of betel leaves. It increases power of digestion, if taken with the juice of agnimantha It is a destroyer of all the doshas, if taken with the trisugandhi.

यशोदभस्मनो ।

गुंजाद्वयं तु यशोदं तालेन भसितं देत् ।
अन्यथा मारितं तत् तु गृह्णीयान् मासम कम् ।

Doses of zinc.

Dose of zinc, incinerated with orpiment, is 2 ractis a day. It is six ractis a day, if incinerated without orpiment.

सदोषयशोदस्य अवगुणः।

यशोदं रोगान् प्रमेहाजीर्णमारुता· ।
वमिं भ्रमिं रोत्येतच्च् छोधयेन् मारये :॥

Evil effects of zinc, not properly incinerated

Zinc, not properly purified and incinerated, gives rise to the following diseases —gonorrhoea, indigestion, flatulence, vomiting, and giddiness. It is therefore to be purified and incinerated properly.

यशोदविकारशान्तिः।

भयां सितायुक्तां सेवते यो दिनत्रयम्।
यशोदस्य वि ात् स क्तिमाप्नोति निश्चितम्॥

Remedy

A man is freed from the evil effects of bad zinc, if he takes for three days bala and haritaki mixed with sugar.

अथ वङ्गम्।

वंगं रंगं कलोहं कुरूप्यं पिच्चटं तथा।
त्रपु च त्रपुसं चैव त्रपुषमपि यते॥
स्वर्णजं नागजी दंगं गुरुपत्रकः।
चक्रसंज्ञं रञ्ज िरं॥

आलीमकं सिंहला च स्ववेतं च तथा पुषम् ।
हिमं च पूतिगन्धं च संगरमपि कथ्यते ॥

भेदः ।

खुरकं मिश्रकं चेति द्विविधं वङ्गमुच्यते ।
खुरं गुणैः ` ' मिश्रकं न हितं मतम् ॥
धवलं मृदुलं स्निग्धं द्रुतद्रावं सगौरवम् ।
निःशब्दं खुरवङ्गं स्यान्मिश्रकं श्यामशुभ्रकम् ॥

VANGA (tin).

Its varieties

There are two kinds of tin, viz. khuraka and mishraka. The former is better than the latter which is unfit for use in medicine. Khuraka is white, soft, soothing, and capable of being melted quickly. It is heavy and melts without any noise. The mishraka variety is blackish white in colour.

गुणाः ।

(१)

वङ्गं तिक्तोष्णकं रुक्षमीषद्वातप्रकोपनम् ।
मेहश्लेष्मामयघ्नञ्च मेदोघ्नं कृमिनाशनम् ॥
पाण्डुश्वासविनाशनं पित्तलं च सरं लघु ।
चक्षुष्यं लेखनं वृष्यं विशेषान् मेहनाशनम् ॥

Its properties

(1)

Tin is bitter, warm, coarse, and a little increaser of vayu. It cures spermatorrhœa, phlegm, obesity, worms, anemia, and asthma. It is laxitive, light, improver of eye-sight, nutritious, reducer of fat, and a special curer of spermatorrhoea

(२)

दीपनपा रुचि शीतलम् ।
सौन्दर्य्यं वि द्धनं हृतजरं नीरोगताकारकः ॥
स्थै रं क्षयक्षयं रं सर्वप्रमेहापःम् ।
भक्षयतो न भवेत् स्वप्नेऽपि शुक्रक्षयः ॥

(2)

Vanga, duly incinerated, is an increaser of strength, power of digestion of food, appetite, intelligence, and beauty. It produces a cooling effect on the system Duly taken, it does away with senility, diseases, and waste. It makes the dhatus stable, and cures all sorts of pramehas Taken regularly, it prevents the nocturnal emission of semen.

शोधनम् ।

प्रथमोविधिः ।

द्रावयित्वा निशा क्षिप्तं निर्गुरि ारसे ।
वि ध्यति त्रिवारेण खुरवङ्गं न संशयः ॥

First process.

Tin is purified, if it is melted for 3 times, and immersed each time in the juice of nirgundi, mixed with powdered haridra (turmeric)

द्वितीयोविधिः ।

अम्लतक्रवि निक्षिप्तं वर्षाभूवि तिन्दुभिः ।
कटूलावुगतं वङ्गं द्रावितं परिशुध्यति ॥

Second process.

Tin is purified, if it is melted with punarnava, visha-tinduka, and katu-alabu, and immersed in sour butter milk.

तृतीयोविधिः ।

शुध्यति नागवंगौ घोषावाराऽतपेऽपि निसंख्यैः ।
निर्गुंडीरससेकैस्तन्मूलरजःप्रलेपैश्च ॥

Third process

Lead and tin are purified, if they are smeared for seven times with the juice of ghosha only or with the juice of nirgundi mixed with the powder of its roots, and dried in the sun, each time they are so smeared

चतुर्थोविधिः ।

त्रपु मूत्रवर्गेऽम्लवर्गे वहूनां जले चारतोये च
वज्रार्कदुग्धे ।
ततः पारसिकस्य कदंबस्य नीरे शुभं चालयेत्
कं सप्तवारैः ॥

Fourth process.

Vanga is purified, if it is heated and immersed, after each act of heating, in the following:—urines, amlas, juice of arka plant, solutions of ksharas, and milks of snuhi and arka. It is then to be again heated and washed off by means of decoction of kadamba leaves

पञ्चमोविधिः ।

नागवङ्गे च गलिते रविदुग्धेन सेचिते ।
त्रिवारैः शुद्धिम तः सच्छिद्रे हण्डिकान्तरे ॥

Fifth process.

Sisaka (lead) and (tin) are purified in the following way —Keep the metal (tin or lead) inside an earthen vessel, the lower part of which is full of pores, and heat the metal with a fire, made of char-coal, placed inside the vessel, which is to be kept upon a pot containing milk of arka The metal, when melted, will fall through the pores The process is to be performed for three times

षष्ठोविधिः ।

माद्धं चूर्णसंयुक्ते दो यन्त्रे हि स्वेदनात् ।
वंग विशुद्धति सूक्ष्मीकृतं न संशयः ॥

Sixth process

Thin leaves of vanga are purified by being boiled for one and half hour by means of the Dola Jantram containing lime water

मारणम् ।

प्रथमोविधिः ।

तालेनार्कदुग्धेन लिप्त्वा वङ्गदलानि च ।
बोधिचिञ्चात्वचः क्षारैर्दद्याल्लघुपुटानि च ।
मर्द्दयित्वा चरेद्भस्म तद्रसादिषु कीर्त्तितम् ॥

Incineration of tin.

First process,

Leaves of tin are to be smeared with haritala and milk of arka and then subjected to Laghuputam with the ashes of bodhi (called 'bauri' in Bengal) and chincha (tamarind).

द्वितीयोविधिः ।

प्रद्राव्य खर्परे षोडशांशं रसं क्षिपेत् ।
स्वल्पस्वल्पालकं दत्त्वा [illegible] ।
मर्दयित्वा चरेद्भस्म तद्रसादिषु कीर्त्तितम् ॥

Second process.

Melt some purified banga in an earthen pot placed over fire, and put upon it one sixteenth its weight of mercury Then put a little purified haritala, every now and then, upon the compound which is to be frequently rubbed by means of a stick made of vanya karpasa wood, till the compound is reduced to ashes

तृतीयोविधिः ।

ाशद्रवयुक्तेन हरितालेन लेपितम् ।
म्रियते वंगपत्रं हि पुटेन नात्र संशयः ॥

Third process.

Leaves of vanga are reduced to ashes, if they are subjected to putam after having been smeared with haritala rubbed with the juice of palasha

चतुर्थोविधिः ।

भल्लाततैलसंलिप्तं वङ्गं त्रे वेष्टितम् ।
चिञ्चापिप्पलपलाशका गौ याति प म् ॥

Fourth process

Vanga is reduced to ashes, if it is heated by fire made of chincha, palasha, and pippala wood, after having been mixed with oil or essence of bhallataka and wrapped with a piece of cloth.

पञ्चमोविधिः ।

दुग्धेन संपिष्टं सतालं पुटस ैः ।
वंगं हि म्रियते शुष्काश्वत्थवल्कलवेष्टितम् ॥

Fifth process

Vanga is incinerated, if subjected to putam for seven times after having been mixed with haritala and rubbed with milk of arka plant, dry barks of

aswatha tree being placed on all sides of the vanga, while confined within the samputam

षष्ठोविधिः ।

विशुद्धवङ्गपत्राणि द्रावयेद्धणिडकान्तरे ।
अपामार्गोद्भवं चूर्णं तत्तुल्यं तत्र मेलयेत् ॥
स्थूलाग्रया लौहदर्व्या शनैस्तदभिमर्दयेत् ।
यावद् भस्मत्वमाप्नोति तावन्मर्दयन्तु पूर्वं तु ॥
ततस्त्वेकीकृतं चूर्णं कृत्वा चाङ्गारवर्ज्जितम् ।
नूतनेन शरावेण रोधयेच्च भिषग्वरः ।
पश्चात्तीव्राग्निना वङ्गं भवेद् ध्रुवम् ॥

Sixth process.

Purified leaves of vanga are to be melted in an earthen vessel, placed over fire, and an equal quantity of ashes of apamarga is to be mixed with the melted vanga The whole thing is to be rubbed quickly by means of the thick end of an iron rod, till the whole thing turns into ashes, which are next to be freed from powdered charcoal, and again subjected to a very strong heat by putam This results in the incineration of the vanga

सप्तमोविधिः ।

वंगं खर्परके कृत्वा चुल्ल्यां संस्थापयेत् सुधीः ।
द्रवीभूते पुनस्तस्मिन् चूर्णान्येतानि दापयेत् ॥

प्रथमं रजनीचूर्णं द्वितीयं च यमानिका।
तृतीयं जीरकं चैव ततश्चिं त्वगुद्भ ॥
अश्वत्थवल्कलं स्थं च चूर्णं तत्र विनिःक्षिपेत्।
लयेदविरामं लौहदर्व्या च खर्परे॥
एवं विधानतो वंगं म्रियते नात्र संशयः।
चूर्णानि भस्मीभू नि क्षालयेद् वारिणा ततः॥

Seventh process

Vanga is to be placed over fire in an earthen pot When it melts, the following powders are to be placed upon it, the whole thing being turned constantly by means of an iron ladle —turmeric, jamani, jeera, chincha bark, and aswatha bark—all of these finely powdered The whole thing is thus reduced to ashes. The ashes of the powders are then to be washed off by means of water, leaving the white powders of vanga deposited at the bottom

अष्टमोविधिः।

माक्षिकं हरितालञ्च पलाशस्वरसेन च।
पिष्टा कल्केन संलिप्य वङ्गप णि मारयेत्॥

Eighth process

Vanga is incinerated, if it is subjected to heat by putam after having been smeared with a păste made

of makshika, and haritala, duly rubbed with the juice of palasha leaves

नवमोविधिः ।

नागवच्छोधयेद् वंगं तद्वदश्वथ्थचिञ्चयोः ।
सद्भस्म हरितालं च तुल्युमम्लेन केनचित् ॥
पलाशोत्थद्रवैर्वाथ लिप्त्वा वङ्गं पचेत् पुटे ।
उद्धृत्य दशमांशेन तालेन सह मर्दयेत् ॥
पूर्वद्रावैः सहालोड्य [illegible] । पुटे [illegible] ।
तद्वविंशतिपुटैः [illegible] मृतं [illegible] ति भस्मसात् ॥

Ninth process

Both vanga and sisaka (lead) may be purified in the same way, and both may be incinerated in the following way —Ashes of aswatha and chincha and an equal quantity of haritala are to be rubbed with a sour-non-metallic juice or with the juice or decoction of palasha leaves Vanga or sisaka is to be smeared with this paste and heated by putam. When cooled, the whole thing is to be taken out of the putam, rubbed again with one tenth its weight of haritala and the liquid referred to above, and then subjected to heat by putam, Twenty such putams are to reduce the vanga (or sisaka) into ashes.

दशमोविधिः ।

वंगपादेन सूतेन वङ्गपत्रं वि पयेत् ।
शिरीषरजनीचूर्णं कुमार्य्याः सह पेषयेत् ॥
सूतलिप्तं वङ्गपत्रं कल्केन विलेपयेत् ।
ध्यद्रस्य चान्तश्छन्नं च तण्डूलैः ॥
पिष्ट्वा तत् पिण्ड ध्ये तु वंगपत्रं च रक्षयेत् ।
पुटे विंशत्या म्रियते पुटैः ॥

Tenth process

Leaves of vanga are to be smeared with one fourth their weight of mercury, and then with a paste made of bark of shirisha, turmeric, and juice of kanya They are then to be put inside a paste made of rice and tamarind seeds, and then heated by putam. Twenty such putams result in the incineration of the vanga.

एकादशोविधिः ।

मृत्पात्रे द्राविते वङ्गे क्षिपेत् तत्र वर्चिकाम् ।
घर्षयेत् लौहदर्व्या यावत् तस्मात् तनुनपात् ।
निः प्रदहेत् शी मुद्धरेत् ।
सुवर्चिकापनोदार्थं सलि ः क्षालयेन् मुहुः ॥
ततोऽतिनि वङ्ग गिपिणा ।
लं क्षिप्त्वाम्लेन विमर्दयेत् ॥

ततो गजपुटे पक्त्वा पुनरम्लेन मर्दयेत् ।
तालेन दशमांशेन पुनरेकं पुटेत् ॥
एवं दशपुटैः वंगं भवति मारितम् ॥

Eleventh process,

Tin melted in an earthen pot, kept over fire, is to be rubbed, by means of an iron ladle with salt petre, gradually put upon it, till fire comes out of it and burns the whole thing. Upon the fire being put out and the pot with its contents being cooled of itself, the ashes of tin are to be freed from those of salt-petre by means of water The ashes, thus prepared, with an equal quantity of haritalam, are to be rubbed with a sour vegetable juice, and subjected to heat by Gaja-putam The product with one tenth its weight of haritalam is again to be rubbed with a sour vegetable juice, and again subjected to heat by putam. Ten such acts of putam will kill the tin out-right

द्वादशोविधिः ।

माक्षिकं हरितालं च पलाशस्वरसेन च ।
पिष्ट्वा कल्केन संलिप्य वंगपत्राणि मारयेत् ॥

Twelfth process.

Vanga is incinerated, if it is subjected to heat by putam, after having been smeared with a paste made of swarna-makshika, haritala, and juice of palasha.

त्रयोदशोविधिः ।

त कैः कर्कटास्थिभिः शंखशुत्ति वराटकैः ।
सिन्धुकर्पूरसंयुक्तं येद् कम् ॥

Thirteenth process

Leaves of vanga are incinerated by means of haritala, rock-salt, camphor, shells of crab, conch, oyster, and cowrie. [This may be effected in one of these two ways —(1) Molten vanga may be roasted with the powder of the things specified, the ashes of which may be washed away afterwards, or (2) Leaves of vanga may be heated by putam after having been smeared with a paste of the things specified.]

चतुर्दशो : ।

भल्लाततोयेन पि वा वंगं विलेपयेत् ।
ततस्तिलखलिमध्ये वा पुटे पचेत् ।
ख्यैर्जायते चत्वारिं प्र कैः ॥

Fourteenth process.

Vanga is incinerated, if it is heated by Gaja putam for forty times, after having been smeared each time with a paste made of bibhitaki and decoction of bhallataka and covered on all sides by means of sesamum cakes.

: ।

वंगभस्म समं कान्तं व्योमभस्म च तत्समम् ।
मर्द्दयेत् कनकाम्भोभिर्निम्बपत्ररसैरपि ॥
दाड़िमस्य मयूरस्य रसेन च पृथक् पृथक् ।
भूपालावर्त्तभस्माऽथ विनिःक्षिप्य समांशकम् ॥
गोमूत्रकशिलाधातु ः सम्यग् विमर्द्दयेत् ।
ततः गुग्गुलुतोयेन मर्द्दयित्वा दिनाष्टकम् ॥
विशोष्य परिचूर्ण्याऽथ समभागेन योजयेत् ।
ष्टबब्बूरनिर्य्यासैराकुलीबीजचूर्णकैः ॥*
: क्षिपेत् करं तद्विधाय पटगालितम् ।
गोतक्रपिष्टरात्रीणां सारेण सह दापयेत् ।
धातुपुष्टिकरं चै प्रमेहकुलनाशनः ॥

Vanga-kalpa.

Tin, kanta iron, and mica—all equal in quantities and reduced to ashes, are to be rubbed with the juices of leaves of kanaka dhutura, nimba, pomegranate, and apamarga, respectively and separately. Incinerated rajavarta, * equal in quantity to the tin, is then to be mixed with the compound, referred to above, and the whole thing is to be rubbed well with cow's urine, and shila-jatu dissolved with water.

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* घृष्टं बन्धूकनिर्य्यासैर्नाकुलीबीजचूर्णकैः । इत्येतत् पाठान्तरम् ।

* See chapter on gems in the present volume

The product is then to be rubbed for eight days with guggulu (duly purified by means of being boiled in a Dola-Jantram with the decoction of guruchi, dasha-muli, or triphala), dissolved with water It is then to be dried, powdered, and mixed with an equal quantity of gum of babbula (acacia), fried by heat and reduced to powder, and with the same quantity of the powder of akuli (nirmali) seeds The whole thing is then to be finely powdered and sifted by means of a piece of cloth and kept carefully. This medicine cures all sorts of meha and prameha, if taken with the juice of turmeric, pestled with butter-milk (prepared from cow's milk).

चतुर्भिर्वल्लै तुल्यमेतद् वंगं र   म् ।
निश्चितं तेन नश्यन्ति मे   विंशतिभेदकाः ॥
शा ो मुद्गसूपं च   ीतं तिलोद्भवम् ।
पटोलं ति ुंडीरं   पथ्याय शस्यते ॥

This preparation of vanga, taken in doses of 12 ractis a day, serves as a destroyer and preventer of senility. It also cures all sorts of diseases relating to the semen. The following diet should be taken by the user of the preparation :—shali rice, juice of mudga pulses, butter, sesamum oil, patola, gopala-karkati, and butter milk.

अपामार्गस्य मूलेन षण्ढत्वं नाशयेद् ध्रुवम् ।
देवपुष्पसमायोगात् समुद्रफलयोगतः ।
गपत्ररसैर्लि ं शिश्नवृद्धिकरं परम् ॥
गोरोच वंगेन ति को मोहनं भवेत् ।
एरण्डमूलि योगाद् घर्षयित्वा च वंगकम् ॥
ल टे लेपन ैव शीर्षगदः प्रशाम्यति ॥
कौब्जेऽपामार्गमूलेन प्लीहि ं ण्संयुतम् ।
रसोनै युङ् यमपर रनिसूदनम् ॥
पुत्राप्त्यै रासभीक्षीरै क्राथ्यं गुल्मनुत् ।
य नि युतं वाते वाजिगन्धायुतं तु वा ॥
गोदरे त्वजाक्षीरसंयुतं गुणकृद् भवेत् ।
जातिफलाश्वगन्धाभ्यां कटिपी निवारणम् ॥

Accompaniments of vanga.

Vanga cures bad smell coming out of the mouth, if taken with camphor. It is nutritious and retainer of semen, if taken with jatiphala In diseases relating to the semen, it is to be used with the juice of tulashi leaves. It is to be used in anemia with clarified butter , in gulma with tankanam , in amlapittam (acidity and biliousness) with haridra , for increase of strength with honey ; in an excess of

pittam with sugar-candy ; for an increase of semen, with juice of tambula (betel leaves), in loss of digestive power, with pippali, in asthma or gasping, with haridra, with juice of champaka flower, in bad smell coming out of the body, with juice of nimba leaves in inflammation of the body, with musk, in diseases due to an excess of vayu, with juice of khadira in skin diseases, with betel nuts in indigestion, with butter in the decay of bones, with milk for nourishment, with bhanga (bhang), etc, for retention of semen, with the juice of rasona (garlic), in diseases due to vayu, in leprosy with samudra fruit mixed with the juice of nirgundi, with the root of apamarga, in impotency, for increase of growth of the penice, it should be used as a paste with lavanga, samudra fruit, and juice of betel leaves It produces a sort of hypnotising power in the man who uses it as a *tilaka* (a mark with sandal paste, etc, on the forehead) It cures head diseases, if applied on the forehead as a paste made with eranda roots and water It is to be used with apamarga roots in hunch-backedness, with tankanam in enlargement of spleen It cures hysteria, if used as a snuff with rasona and sesamum oil It is to be used with the milk of ass for the purpose of conceiving or begetting a male child, with butter-milk in gulma due to an excess of vayu, with jamani or ashwagandha, in diseases due to an excess of vayu ; with goat's milk in dropsy ; and with jatiphala and ashwagandha in sciatica

शोधनमारणहीनवङ्गस्य अवगुणाः ।

(१)

पाकेन हीनः खलु वंगकं हि कु नि गुल्म नि
बहूंश्च रोगान् ।
पाण्डुप्रमेहापचिवातरक्तं बलापहारं कुरुते नराणाम् ॥

Evil effects of vanga, not properly purified and incinerated

(1)

Vanga, not properly purified and incinerated, gives rise to various diseases such as leprosy, gulma, anemia, spermatorrhœa and gonorrhœa, scrofula, vata-racta (leprosy of a mild type), and loss of strength.

(१)

वंगं विधत्ते खलु शुद्धिहीनमाक्षेपकम्पौ च वि -
गुल्मौ ।
कुष्ठानि शूलं किल वातशोथं पाण्डु प्रमेहश्च
भगन्दरश्च ॥
विषोपमं रक्तविकारवृन्दं क्षयश्च कृच्छ्राणि कफज्वरश्च ।
मेहाश्मरीविद्रधिमुष्करोगान् नागोऽपि कुर्य्यात्
कथितान् विकारान् ॥

(2)

Vanga as well as sisaka, not properly purified and incinerated, gives rise to the following .—spasm, shivering, kilasha, gulma, kustha, colic, dropsy,

anemia, prameha, fistula, impurities of the blood, phthisis, obstinate fever due to an excess of kapha, stone disease, and tumour.

वंगवि   न्तिः।

मेषशृङ्गीं सितायुक्तां सेवते यो दिनत्रयम्।
वंगदोषविमुक्तोऽसौ सुखं जीवति   नवः॥

Remedy

A man is freed from the evil effects of vanga, prepared improperly, if he takes for three days mesha-shringi (powder or decoction) with sugar or sugar-candy

अथ नागम्।

सीसं   च   च योगेष्टं सीसकं ना   ।
कुवंगं च कुरंगं च द्विरदसर्पनाम   ॥

सीसकस्य गुणाः।

(१)

सीसं रंगगुणं ज्ञेयं विशेषान् मेहनाशनम्।
सतिक्त‑धुरो नागो मृतो यदा तु भ   त्।
आयुःकीर्त्तिवीर्यवृद्धिं   रोति सेवनात् सदा॥

Sisaka (*Lead.*)

Its properties

(1)

The properties of lead are similar to those of tin. It is especially efficacious in diseases affecting the semen. It is bitter and sweet in taste

(२)

नागस्तु नागशततुल लं ददाति
व्याधिं विनाशयति जीवनमा गोति ।
वह्निं प्रदी ति मबलं करोति
मृत्युं च नाशयति सन्ततसेवि : सः ॥

(2)

When incinerated, it increases longevity, semen, power of digestion of food, and procreative energy, if taken regularly and for a long time.

(३)

अत्युष्णं सीसकं स्निग्धं तिक्तं वात पहम् ।
हतोयदोषघ्नं दी मवातनुत् ॥

(3)

Lead produces a very hot sensation in the system It is soothing, bitter in taste, destroyer of vayu, kapha, prameha, and rheumatism, and increaser of power of digestion.

(४)

सति मधुरो नागो त य र ा परः ।
स्मृत्यायुर्वीर्य्य नं रोति से सदा ॥

(4)

Lead is bitter and sweet in taste. It is a good dyer of silver. By constant use, it increases memory, longevity, and semen.

(५)

क्षयपवनविकारे गुल्मपाण्डुभ्रमेषु ।
कृमिकफजशूले मेहकासामयेषु ॥
ग्रहणीगुदगदे वै न हौ प्रशस्तः ।
शुभविधिकृतनागः कामपुष्टिं ददाति ॥

(5)

Lead, incinerated in the best way prescribed, is efficacious in phthisis, diseases due to vayu, gulma, anemia, giddiness, worms, colic due to an excess of phlegm, spermatorrhœa, chronic diarrhœa, diseases affecting the rectum, and loss of the power of digestion. It also serves as an aphrodisiac.

शुद्धसीसस्य परीक्षा ।

द्रुतद्रावं महाभारं छेदे कृष्णं समुज्ज्वलम् ।
पूतिगन्धं बहिः कृष्णं शुद्धसी तोऽन्यथा ॥

Test of lead free from alloy

Lead is to be regarded free from alloy, if it melts quickly, weighs heavy, and presents a black and bright sectional surface at the place where it is cut into two pieces.

अस्य शोधनम् ।

ोविधिः ।

निर्गुण्डीमूलचूर्णेन चार्कदुग्धेन लेपयेत् ।
नागपत्रं परिशुष्कं वयित्वा निषेचयेत् ॥

निर्गुण्डीद्रवमध्ये तु ततः तु कारयेत् ।
लिप्त्वा व्यं पुनः सेच्यं वारं विशुद्धये ॥

Purification of Lead.

Lead is purified, if it is made into leaves, smeared with powdered nirgundi roots rubbed with milk of arka, and then dried, melted, and immersed into the juice of nirgundi, the process being performed for seven times

द्वितीयोविधिः ।

निशा तुम्बुरुबीजानि कोकिलाक्षं कुठारि ।
गौरीफ म्लिका चण्डी क्षुद्रब्राह्मी च जीरकम् ॥
यथालाभेन भस्मैषां वज्रीक्षीरेण भावयेत् ।
तन्मध्ये निहितं नागं शुद्धं च स्वेद्यं तु सप्तधा ॥

Second process.

Leaves of lead are purified, if they are smeared with a paste made of the milk of snuhi and the ashes of as many as available of the following, and then heated for seven times, after having been smeared with the paste each time —haridra, green dhanya seeds, kokilaksha, kootharika, amalaki, chincha, red-rose, small brahmi, and jeera

तृतीयोविधिः ।

घोषारनागवंगं हि तापितं स रतः ।
निर्गुण्डीर ध्ये तु विशुध्यते निमज्जितम् ॥

Third process

Bell-metal, brass, lead, and tin are purified by heating and immersing them into the juice of nirgundi for seven times.

चतुर्थोविधिः ।

सिन्दुवारजटाकान्तीहरिद्राचूर्णकं क्षिपेत् ।
द्रुते नागेऽथ निर्गुण हि रं निक्षिपेद् रसे ।
नागः शुद्धो भवेदेवं मूर्च्छा ोटादि नाचरेत् ॥

Fourth process

Powdered root of nirgundi, barahi-kanda, and haridra are to be thrown into molten lead which is then to be immersed into the juice of nirgundi for three times (after having been melted each time) Lead, thus purified, does not give rise to hysteria, boils, etc

मोविधिः ।

गलिते नागवङ्गे च क्षिप्ते सच्छिद्रे खर्परे ।
निषेचिते रवेर्दुग्धे त्रिवारेण विशुध्यति ॥

Fifth process

Lead as well as tin is purified, if it is melted for three times and immersed each time through an earthen pot full of pores, into the milk of arka

षष्ठोविधिः ।

नागवङ्गौ विगलितौ त्रि त्रि नि ।
तैले च काञ्जिके क च कुलत्थजे ।
रविदुग्धे निषेचयेत् ोरेव विशुद्धये ॥

Sixth process.

Lead as well as tin is purified, if it is immersed for three times in each of the following, after having been melted each time —oil, butter-milk, kanji, decoction of kulattha, and especially, milk of arka plant.

सप्तमोविधिः।

त्रिकज ाये वा कु‌ाा‌ े वा
करि‌ ‌‌ले वा गालयेत् सप्तवारम्।
खदिरदहनतप्तं लौहपात्रस्थितं स्यात्
तदनु सपदि नागः जायते शुद्धभावः॥

Seventh process.

Lead is purified, if it is melted for seven times in an iron pot by a fire made of khadira wood and immersed each time either in the decoction of triphala, or in the juice of kanya, or in the urine of elephant.

मारणम्।

प्रथमोविधिः।

श्वत्थचिंचात्वग् चतुर :।
क्षिप्त्वा चु तू पात्रे च येल् लौहयष्टिना॥
यावद् भ भवेत् तच्च भस्मतुल्यं मनःशि ।
जम्बीरैरारनालैर्वा पिष्ट्वा ा पुटे पचेत्॥

स्वांगशैत्यं पुनः पिष्टा विंशत्यंशैः शि कैः ।
एवं षड्भिः पुटैः पाको नागं कुर्य्यात् निरुरि म् ॥*

Incineration of Lead.

First process

Leaves of lead are to be roasted with one fourth their quantity of the ashes of the barks of aswattha and chincha, in an iron cauldron, turned by an iron rod, till the whole thing turns into ashes These ashes are to be rubbed with an equal quantity of manas-shila and lime juice or aranala and subjected to heat by putam. When cooled of itself, the contents of the putam are to be taken out and subjected to heat by putam for six times, after having been rubbed each time with one twentieth their weight of manas-shila and a sufficient quantity of a sour vegetable juice

द्वितीयोविधिः ।

अथवा नागपत्राणि चूर्णानि नि खर्परे ।
अत्यग्नौ पाचयेद् यामं तद्भस्म नि कद्रवैः ॥
भर्जयेल् लौहजे पात्रे चालितं पार्थदण्डकैः ।
यामषोड़शपर्य्यन्तं द्रवो देयः पुनः पुनः ॥
पाकान्ते सर्वमुद्धृत्य मर्दयेच्चित्रकद्रवैः ।
गोलं धृत्वा विमारयेत् षड्भि पुटैश्च तत् ॥

* षड्भिः पुटैः इत्येतस्य स्थले षष्टिपुटैः इत्येतत् पाठान्तरं द्रष्टव्यम् ।

Second process.

Leaves of lead are to be smeared with a sufficient quantity of slaked lime and heated in an earthen pot by a very strong heat for three hours. The ashes, thus prepared, are to be roasted with a decoction of chitraka roots for forty eight hours, being turned all the while by means of a branch of an arjuna tree, fresh decoction being poured into the vessel every now and then. The ashes are next to be subjected to heat by *laghuputam* for six times, after having been rubbed each time with a decoction of chitraka roots.

तृतीयोविधिः ।

चिंचाक्षकेक्षुभल्लातब ल भवैः ।
मार्गाजुनाश्वत्थभस्मभिर्भर्जयेद् दृढम् ॥
सप्ताहं नियतं परिचालितम् ।
पलाशतरुदण्डेन म्रियते त्र संशयः ॥

Third process

Leaves of lead are incinerated, if they are fried steadily in an iron cauldron with the ashes of chincha, bibhitaki, ikshu (sugar-cane), bhallataka, bala, asthisanhara, apamarga, arjuna, and aswattha, for seven days continuously, being turned constantly all the while by means of a palasha rod.

चतुर्थोविधिः ।

कुनटी माक्षिकं समं गं रयेत् ।
अर्कपर्णेन तत् पिष्ट्वा सीसपत्राणि मारयेत् ॥

Fourth process

Leaves of lead are incinerated, if they are subjected to heat by putam after having been smeared with a paste made of an equal quantity of manassila and makshika, rubbed with the juice of arka leaves.

पञ्चमोविधिः ।

हतमुत्थापितं सीसं दशवारेण सिध्यति ।
तन्मृतं सीसकं सर्वदोषमुक्तं रसा मृ ॥ *

Fifth process

Lead, killed and revived for ten times, is to be killed once more. The ashes, thus obtained, are freed from all defects and serve as a medicine which prevents and cures senility.

षष्ठोविधिः ।

शिलया रविदुग्धेन णि लेपयेत् ।
मारयेत् पुटयोगेन निरुत्थं यते त ॥

* धातूनामनिरुत्थ केनचिदम्लरसेन सार्द्धं मर्दितं ध्मापितं च पूर्वाकारमवाप्नुयात् । यथा हि—क्षारा मु : सर्वे सर्वे : प्रबोधकाः ।

Sixth process.

Leaves of lead are incinerated absolutely, if they ire subjected to heat by putam after having been meared with manas-shila, rubbed with the milk of he arka plant Such ashes are rendered incapable if being restored to their original condition.

सप्तमोविधिः ।

त्रिभिः म्भिपुटैर्नागो वासारसविमर्दितः ।
सशिलो भस्मतामेति तद्रजः सर्वमेहनुत् ॥

Seventh process

Lead is incinerated, if it is rubbed with the juices f kumbhi (a kind of water plant), vasaka leaves, nd manas-shila, and then subjected to heat by utam for three times.

अष्टमोविधिः ।

एकोभागोऽहिफेनस्य नागभागचतुष्टयम् ।
घर्षणान् निम्बकाष्ठेन मन्दवह्निप्रदानतः ।
नागभूतिर्भवेत् सिता वीर्य्यदार्ढ्यकरी म ॥

Eighth process.

Four parts of lead and one part of opium are to e heated together by a mild heat, and rubbed connuously, while heated, by a rod made of nimba ood. This results in the reduction of the lead to hite powder, which, taken in proper doses, strengtens semen.

नवमोविधिः।

कुड़वं नागपत्राणां कुनट्याः स्यात् पलार्द्धकम्।
तण्डुलीयरसैर्यामं यामं वासारसैस्तथा॥
संमर्द्य चक्रिकां कृत्वा घर्मे संशोष्य तां पुनः।
शरावसंपुटे कृत्वा पचेद् वन्योपलैर्भिषक्॥
एवं सप्तपुटैर्नागो भस्मीभवति निश्चितम्।
द्विगुंजोऽयं ध्रुवं हन्यात् प्रमेहानखिलान् गदान्॥

Ninth process.

Sixteen tolas of leaves of lead and two tolas of manas-shila are to be rubbed for three hours each with the juices of tanduliyaka and vasaka, and made into cakes which are to be dried in the sun and heated by putam. Performance of this process for seven times results in the incineration of the lead which, taken in doses of two ractis a day (with honey and juice of turmeric, etc.) cures all sorts of prameha (gonorrhœa).

दशमोविधिः।

नागं खर्परके निधाय कुनटीचूर्णं ददीत द्रुते।
निम्बूत्थद्रवगन्धकेन पुटितं भस्मीभवत्याशु तत्॥
एवं तालकवापतस्तु कुटिलं चूर्णीकृतं तत् पुटेत्।
गन्धाम्लेन समस्तदोषरहितं योगेषु योज्यं भवेत्॥

Tenth process.

Powdered manas-shila is to be mixed with lead, when melted in an earthen vessel It is then to be powdered and subjected to heat by putam, after having been rubbed with sulphur and lemon juice. This results in the lead being reduced to ashes very soon. Powdered haritalam may be used in lieu of manas shila.

एकादशोविधिः।

(हरिद्भस्म)

खर्परे तापितं नागं रविमूलेन घर्षयेत्।
यामत्रिकैर्भवेद्भस्म हरिद्वर्णमदूषणम् ॥

Eleventh process.

Lead, heated in an earthen pot, is to be rubbed with the roots of arka plant for three hours, after which it is reduced to powder of a green colour.

द्वादशोविधिः।

(पीतभस्म)

शिलागन्धककर्पूरं कुंकुमं मर्दयेत् म्।
जंबीरस्य द्रवैर्यामं तत्समं नागपत्रकम् ॥
लिप्त्वा लिप्त्वा पुटे पाच्यं यावत् षष्टिपुटं भवेत्।
तन्नागं विद्युच्चदाभासं जायते नात्र संशयः ॥

Twelfth process

Leaves of lead are reduced to ashes of a yellowish colour, if they are subjected to heat by putam

for sixty times, after having been smeared each time with manas shila, gandhaka, karpura, and kunkuma, all combined being equal in quantity to the lead, rubbed with lime juice for three hours.

त्रयोदशोविधिः ।

तिर्य्यगाकारचुल्ल्यां तु तिर्य्यग्वक्त्रघटं न्यसेत् ।
तं च वक्त्रं विना सर्वं गोपयेद् यत्नतो मृदा ॥
भ्रष्टयन्त्राभिधे तस्मिन् यन्त्रे नागं विनिक्षिपेत् ।
विंशतिपलमात्रकमधस्तीव्रानलं क्षिपेत् ॥
द्रुते नागे क्षिपेत् सूतं शुद्धं कर्षमितं शुभम् ।
विघट्य निक्षिपेत् क्षारमेकैकं हि पलं पलम् ॥
ग्रन्थिपर्णस्य चिञ्चायास्य महाराजगिरेरपि ।
दाड़िमस्य मयूरस्य क्षिप्त्वा क्षारं पृथक् पृथक् ॥
एवं विंशतिरात्रं वै पचेत् तीव्रेण वह्निना ।
विघट्टयेद् दृढं दोर्भ्यां लौहदर्व्या प्रयत्नतः ॥
रक्तं तज्जायते कपोतच्छायमेव वा ।
नागं दोषविनिर्मुक्तं यतेऽति रसायनम् ॥

Thirteenth process.

On an oven of slanting shape place a vessel which also is of slanting shape. All parts of the latter, except its mouth, are to be coated with mud This apparatus is called the Bhrista Jantra.

Pour 20 palas of lead into this vessel, and heat it by a very strong fire. One tola of purified mercury is to be poured into the lead, when melted, the whole thing being rubbed by means of an iron rod. One pala of the kshara of each of the following is to be put, one by one, on the lead, and the rubbing is to be continued —arjuna, vibhitaki, mango tree, pomegranate tree, and apamarga. The roasting is to be carried on in this way by a strong heat for 20 nights, resulting in the reduction of the lead into ashes of red colour or of a colour resembling that of a pigeon.

चतुर्दशोविधिः।

तांबूलरससंपिष्टः शिलालेपात् पुनः पुनः।
द्वात्रिंशद्भिः पुटैर्नागो निरुत्थो याति भस्मताम्॥

Fourteenth process.

Lead is incinerated, if it is subjected to heat by putam for thirty two times, after having been smeared each time with a paste made of manas-shila, rubbed with the juice of tambula (betel leaves).

पञ्चदशोविधिः।

(नागसिन्दूरः)

अश्वारीपादघातेन तत्क्षणान् म्रियते फणी।
पुटेन शतकेनापि सिंदूरः केवलं भवेत्।
तारे तथा वंगे ततो वेधी भवेद् ध्रुवम्॥

Fifteenth process.

Powdered lead is reduced to ashes of red colour, if it is subjected to putam for hundred times, after having been rubbed with the juice of the root of kanya each time it is so heated. Such ashes may transform silver, copper, and tin into gold

षोड़शोविधिः।

(नागसिन्दूरः।)

[illegible] पिष्ट्वा पात्रं विलेपयेत्।
वा पामार्गजं क्षारं तत्र नागयुतं क्षिपेत्॥
चतुर्थांशप्रमानेन वासादर्व्या विघट्टयेत्।
यामैकेन भवेद्भस्म वासकस्वरसान्वितम्।
मर्दयेत् पुटयेच्चैव नागसिन्दूरकं हि तत्॥

Sixteenth process.

The inner surface of a pot is to be coated with a paste made of earthworms and leaves of vasaka. Into this vessel is to be placed some lead with one fourth its quantity of ksharas, prepared out of vasaka and apamarga plants (duly burnt, dissolved with water, filtered, and then dried). The vessel is then to be placed over fire and the lead with the ksharas to be turned constantly by a ladle made of the vasaka plant. This will result in the incineration of the lead, in course of three hours only The ashes, thus prepared, are to be rubbed with the juice

of vasaka leaves, and subjected to heat by putam. They will thus assume the colour of red vermilion.

सप्तदशोविधिः ।

(नागसिन्दूरः ।)

भुजंगममगस्त्यस्य पत्रं पिष्टा प्रलेपयेत् ।
तत्र संविद्रुते नागे वासापामार्गसंभवम् ॥
क्षारं वा मिश्रयेत् तत्र चतुर्थांशं प्र　तः ।
प्रहरं पाचयेच् चुल्ल्यां वासादर्व्या च घट्टितम् ॥
तत उद्धृत्य　　णं वासानीरैर्विमर्द्दयेत् ।
पुटेत् पुनः समुद्धृत्य तेनैव परिमर्द्दयेत् ॥
एवं सप्तपुटैर्नागः सिन्दूरो जायते ध्रुवम् ।
पादांशदरदेन च युक्तोऽयं जायते वरः ॥

Sevent_enth process.

Lead is to be smeared with a paste made of the leaves of vasaka It is then to be melted and roasted for three hours with a decoction of vasaka and apamarga or one fourth its quantity of a kshara (alkali) prepared out of the ashes of vasaka and apamarga *, a branch of a strong vasaka tree being used as a ladle to turn the preparation The ashes are then to be subjected to putam for seven times, after having been rubbed each time with the juice of vasaka The product is sindura or red vermilion.

* The process of preparation of ksharas will be described later in the present volume

It gains in efficacy, if mixed with one fourth its quantity of hingula (duly purified).

अष्टादशोविधिः ।

(नागसिन्दूरः ।)

पादां भूनागलिप्तं नागं विशोषयेत् ।
तद्भाण्डे वयेद् यत्नाद् दृढे भाण्डे विनिक्षिपेत् ॥
वासाचिञ्चि योः क्षारं वासादले विघट्टयेत् ।
पाचयेच्च् चुल्यां समुद्धृत्य विमिश्रयेत् ॥
शि प्यैर्वासकक्षारसंयुतैः ।
तुल्यं पूर्वं गैरेकविंशतिधा पुटेत् ।
द्विपुटं चिञ्चिटाक्षारैर्देयं वासारसैः सह ।
सिन्दूरवर्णाभं म्रियते कार्य्य त् ॥

Eighteenth process.

Lead is to be dried after having been smeared with one fourth its quantity of vasaka leaves rubbed with earthworms. It is then to be melted and kept in a strong pot. Ksharas of vasaka and apamarga are to be rubbed with the leaves of vasaka and then heated for three hours by fire. These ksharas are to be mixed well with the lead (finely powdered). The powder, thus prepared, is to be subjected to heat by putam for 21 times, after having been mixed each time with manas-shila, swarnamakshika, and kshara of vasaka, these three combined being equal to the

original quantity of the lead. The product is again to be subjected twice to heat by putam after having been rubbed each time with the juice of vasaka. The product is red vermilion.

नागामृतम् ।

(१)

पलद्वयं मृतं नागं हिंगुलं च पलद्वयम् ।
शिला कर्षमिता ह्या सर्वतुल्यं हि गन्धकम् ॥
निम्बुनीरेण ततो गजपुटे पचेत् ।
तदा नागेश्वरोऽयं स्यान् गराजसुतोपमः ।
समूते मारिते नागे न देयं गन्धहिंगुलम् ॥

Nectarization of lead.

(1)

Two palas of lead incinerated (without the help of mercury), an equal quantity of hingula, and one tola of gandhaka—all of these are to be rubbed with the juice of nimboo (lime fruit), and subjected to heat by Gaja putam. Thus treated, lead becomes very powerful.

(२)

वैधं गोऽद्भवं ताप्यभस्मा भागिकम् ।
पादं पादं क्षिपेद्भस्म लवस्य विम य च ॥

It cures eighty different kinds of diseases due to an abnormal excess of vayu, and especially dhanus-stanbha (titanus), those due to an abnormal excess of phlegm, all sorts of urinary diseases, asthma, kapha, phthisis, anemia, dropsy, fever accompanied with a sensation of coldness, and hydrocele.

नागस्य अनुपानम्।

मृतं नागं सिताशुक्तं मायुं वायुं शिरोव्यथाम्।
नेत्ररोगं शुक्रदोषं पं प्रदाहं जयेत्॥
प्रददाति रुचिं कामं वर्द्धयेत् पथ्यसेविनः।
स्वबुद्ध्या कल्पयेद् धीमाननुपानं गदेषु च॥

Accompaniments of lead.

Incinerated lead, if taken with sugar, can cure pittam, vayu, head-ache, eye-disease, diseases affecting semen, delirium, inflammation, loss of appetite, and loss of sexual desire, provided there is nothing to be objected to in the diet taken by the patient.

शोधनमारणहीननागस्यावगुणाः।

कुष्ठानि गुल्मारुचिपाण्डुरोगान् क्षयं कफं रक्त-
विकारकृच्छ्रम्।
श्मरीशूलभगंदरं नागं त्वपक्वं कुरुते
नराणाम्॥

Evil effects of lead, not properly purified and incinerated

Lead, not incinerated in the prescribed way, gives rise to leprosy, gulma, loss of appetite, anemia, phthisis, phlegm, troublesome impurities of the blood, fever, stone disease, colic, and fistula

नागदोषशान्तिः ।

हेम्ना हरीतकीं खादन् सि युक्तां दिन म् ।
अपक्वनागदोषेण विमुक्तः मेधते ॥

Remedy.

One is freed from the evil effects of lead, not properly incinerated, if one takes incinerated gold with haritaki, (one fourth of a tola in weight), and sugar for three days.

तोयोऽध्यायः ।

अथ मिश्रधातवः ।

अथ पित्तलम् ।

अस्य नामानि ।

पि   ारकूटश्च द्रव्यदारु रीतिस्तथा ।
मिश्रश्च पतिकावेरः पिंगला पीतलोहकः ॥
आरश्च कपि   चन्द्र वर्णं सिंहलं तथा ।
पीतलकं च पीतकं पिङ्गलधातु लोहितम् ॥

अस्य भेदाः ।

रीतिका द्विविधा ज्ञे   तत्राद्या राजरीति   ।
रीति द्वितीया सा   कतुण्डी च कथ्यते ॥
संतप्ता काञ्जिके च्वि   ाभा राजरीतिका ।
एवं या   यते कृष्णा काकतुण्डी   ा हि   ॥
यशोदं द्विगुणं   म्रं   विते राजरीतिका ।
जायते ब्रह्मरीति   ना   ोगतः ॥
तिक्ता राजरीति रुक्षा जन्तुघ्नी र पित्तनुत् ।
वस्तिविशोधिनी योगात् सोष्णवीर्य्या च शीत   ।
कतुण्डी गतस्नेहा तिक्तोष्णा   पित्त तु ॥

यकृत्प्लीहहरा सा च शीतवीर्य्या प्रकीर्त्तिता ।
रीतिकायुगलं पाण्डुरोगघ्नं कृमिनाशनम् ॥

CHAPTER III

MIXED METALS

Pittala (Brass).

Its varieties

Riti or Pittala is of two kinds, viz. (1) raja-riti and (2) brahma-riti or kaka-tundi. Raja-riti is that variety of brass which assumes the colour of copper after it is heated and immersed in kanji. Brahma-riti or kaka-tundi is that variety of copper which assumes a black colour, if treated in the afore-said way. Raja-riti consists of two parts of copper and one part of zinc, whereas brahma-riti is the product of copper, zinc, and lead.

Raja-riti is bitter, coarse, destroyer of worms, curer of hœmorrhage, and purifier of the abdomen. It is cooling, but produces heat in the system, if combined with other materials

Kaka-tundi is coarse, bitter, warm in its immediate effect, but cooling afterwards, destroyer of kapha and pittam, and curer of diseases affecting the spleen and the liver

Both the varieties are curer of anemia and worms.

शुभाशुभपित्त णम् ।

गुर्व्वी मृद्वी च पीताभा रांगी ताड़नक्षमा ।
सुस्निग्धा मसृणाङ्गी च रीतिरेतादृशी शुभा ॥

पाण्डुपीता खरा रुक्षा बर्वरा ताड़नाक्षमा ।
पूतिगन्धा तथा लघ्वी रीतिर्नेष्टा रसादिषु ॥

Characteristics of good and bad brass.

Good brass is heavy, mild, yellowish, full of substance, malleable, soft, and smooth Bad brass is blackish yellow, rough, course, ugly, brittle, yielding bad odour, and light Such copper is not fit for being used in medicines.

रि शोधनम् ।

प्रथमोविधिः ।

पित्तलं च तथा स्यं त न् मारयेत् पृथक् ।
ता च्छोधनं तेषां ताम्रवद् गुणकारकम् ॥

Purification of pittala (brass)

Brass as well as bell-metal is to be purified and incinerated in the same way as copper

द्वितीयोविधिः ।

त क्षिप्ता च निर्गुण्डीरसे श्यामारजोऽन्विते ।
पञ्चवारेण संशुद्धिं रीतिरा ति निश्चितम् ॥

Second process

Brass is purified, if it is heated for five times and immersed each time into the juice of nirgundi, mixed with powdered turmeric.

तृतीयोविधिः ।

त्रिक्षारं पञ्चलवनं सप्तधाम्लेन भावयेत् ।
कांस्यारकूटपत्राणि तेन कल्केन लेपयेत् ।
ततो गजपुटे पा त् शुद्धिं यान्ति न संशयः ॥

Third process.

The three ksharas and five salts are to be subjected to bhavana for seven times with a sour vegetable juice Leaves of brass and bell-metal are then to be smeared with the paste, referred to above, and subjected to heat by Gaja-putam This results in the purification of the leaves

चतुर्थोविधिः ।

सुवर्णरीतिकाचूर्णं भक्षितं विष्ठितं पुनः ।
छागेन कृष्णवर्णेन म तरुणेन च ॥
तल्लिप्तं खर्परे दग्धं द्रुतं श्चति शोभनाम् ।
चतुर्दशलसद्वर्णासुवर्णासदृशच्छविम् ।
देहलोहकरी प्रो । युक्ता रसरसायने ॥

Fourth process.

A lusty young goat of black colour is to be fed with powdered brass of an excellent colour, which, when come out of the goat's stomach in the form of stool, is to be burnt in an earthen vessel with the result that excellent brass resembling gold of fourteen units of colour will come out of it. This brass,

when properly incinerated, serves to strengthen the body It is important both in alchemy and in medicine.

अस्य मारणम् ।

प्रथमोविधिः ।

नि बुरसशिलागन्धवेष्टिता पुटि　　　।
रीतिर　ति भ　त्वं ततो योज्या यथायथम् ॥

Incineration of pittala

First process,

Brass is incinerated, if it is subjected to heat by putam for eight times, after having been smeared each time with a paste made of lemon juice, manas-shila, and sulphur

द्वितीयोविधिः ।

नूमारणं त　ाः कुर　सर्व्वत्र योजयेत् ।
म्रियते गन्धता　भ्यां यु　वा पुटपाकतः ॥

Second process.

Brass may be incinerated in the same way as copper. It may also be incinerated, if subjected to heat by putam after having been smeared with a paste made of sulphur and orpiment

तृतीयोविधिः ।

ँक्षीरं वटक्षीरं निर्गुण्डीक्षीरकं तथा ।
ता ीतिध्वनिध्वंसे समगन्धकयोगतः ।
पुटपाकप्रकारेण थं जायते ध्रुवम् ॥

Third process.

Copper, brass, as well as bell-metal is killed, if subjected to heat by putam, after having been smeared with a paste made of the milks of arka, banyan, and nirgundi, rubbed with an equal quantity of sulphur

पित्तलस्य व्यवहारः ।

मृतारकूटकं कान्तं व्योमसत्वं च रितम् ।
त्रयं समांशकं तुल्यव्योषं जन्तुघ्नसंयुतम् ॥
ब्रह्मबीजाजमोदाग्नि ाततिलसंयुतम् ।
सेवितं निष्क त्रं हि जन्तुघ्नं नाशनम् ।
विशेषाच्छ्वेतकुष्ठघ्नं दीपनं पाचनं हितम् ॥

Use of brass

Incinerated brass, kanta iron, essence of mica , —all equal in quantity to trikatu, biranga, palasha seeds, vana-jamani, chitraka roots, bhallataka oil, and tila (sesamum)——all of these are to be mixed together and taken in doses of one fourth of a tola a day, It cures worms, leprosy, and leucoderma. It increases appetite and power of digestion

कांस्यपित्तलयोर्वेधः ।

आरं तारं समं कृत्वा मृतवंगं नियोजयेत् ।
एषा राजवती विद्या पिता पुत्रं न भाषते ॥

Transmutation of brass and bell-metal

Brass and silver, equal in quantity, are to be melted. Incinerated vanga or tin is to be mixed, little by little, with this amalgam with the result that the whole thing will turn into silver.

अथ कांस्यम् ।

ध्वनिश्च कांस्यकं कांस्यं घोषपुष्पं च घोषकम् ।
घोषो घोषमग्निलोहं घोषा च कथ्यते हि तत् ॥
चतुर्भागेन ताम्रेण भागैकखुरकेण च ।
विद्रुतेन भवेत् कांस्यं रसे साधु तदेव ात् ।

Kansya (Bell-metal)

Bell-metal is composed of four parts of copper and one part of vanga, melted together. Bell-metal, thus prepared, is commendable in medicines

शुभकांस्यस्य लक्षणम् ।

तीक्ष्णशब्दं मृदु स्निग्धमीषच्छ्यामलशु म् ।
निर्मलं दाहरक्तं च षट्कं कांस्यं प्रशस्यते ॥

Characteristics of good bell metal

Good bell-metal has the following characteristics —(1) sharp sound, (2) softness, (3) mildness, (4) dusky white colour, (5) freedom from impurities and (6) assumption of red colour, when heated

अशुभकांस्यलक्षणम् ।

तत् पीतं दहने म्र ं खरं रुक्षं घनासहम् ।
मर्दनादागतज्योतिः षट्कं कांस्यं परित्यजेत् ॥

Characteristics of bad bell metal

Bell-metal of an inferior kind is (1) yellow in colour. (2) When heated, it assumes the colour of copper. (3) It is sharp, (4) coarse, (5) unable to stand percussion, and (6) turns glazy when rubbed with something else.

गुणाः ।

क ं लघु च तिक्तोष्णं लेखनं द ादनम् ।
क्रिमिकुष्ठहरं वातपित्तघ्नं दी ं हि तत् ॥
घृतमेकं वि चान्यत् सर्वं कांस्यगतं नृ म् ।
भु रोग्यसुखदं हितं सा रं तथा ।
रससेवी न भुञ्जीत कांस्ये च कदलीदले ॥ ❀

❀ २०४ पृष्ठं द्रष्टव्यम् ।

Properties of Bell-metal

Bell-metal is light, bitter, and warm, reducer of fat, improver of eye-sight, curer of worms and leprosy, pacifier of vayu and pittam, increaser of power of digestion Every article of food stuff, except clarified butter, becomes salutary to the system, if served on utensils made of bell-metal One who takes a mercurial preparation should not take his food served on a bell-metal utensil.*

शोधनम् ।

प्रथमोविधिः ।

१२३ पृष्ठे तृतीयोविधिः १४३ पृष्ठे प्रथमो विधिस्तथा १४४ पृष्ठे तृतीयो विधिश्च द्रष्टव्याः ।

Purification of Bell-metal

First process.

See Processes I and III, pages, 143-144 and Process III, page 124

द्वितीयोविधिः ।

तप्तं कांस्यं गवां मूत्रे वापितं परिशुध्यति ।
या मथवा रि तस्मिन्नेव दृढाग्निना ॥

Second process.

Leaves of bell-metal are purified, if they are heated and immersed red hot into cow's urine, or boiled for three hours in the same liquid by a strong heat.

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* See page 204, Vol I

अस्य मारणम् ।

प्रथमोविधिः ।

(प्रथम ˋ २४७ पृष्ठे चतुर्थोविधि द्रष्टव्यः ।)

Incineration of Bell-metal

First process.

(See page 247, Process No 4, Vol II)

द्वितीयोविधिः ।

पत्तलीकृतपत्रं हि कांस्यस्य शोधितस्य च ।
म्रियते गन्धता भ्यां निरुत्थं पञ्चभिः पुटैः ॥

Second process.

Thin leaves of bell-metal, duly purified, are reduced absolutely to ashes, if they are subjected to heat by putam for five times, after having been smeared each time with a paste made of sulphur and orpiment.

वर्त्तलोहम् ।

स्यार्करीतिलौहाहिजातं तद्वर्त्तलोहकम् ।
तदेव प गो ख्यं लोहविद्भिरुदाहृतम् ॥

Varta-loha

It is an amalgam of bell-metal, copper, brass, iron, and lead It is also called pancha-loha (amalgam of five metals)

गुणाः ।

(१)

हिमाम्लं कटुकं रुक्षं कफपित्तविनाशनः ।
रुच्यं त्वच्यं कृमिघ्नं च नेत्रंच मलविशोधनम् ॥

Its properties

(1)

Varta-loha is cool, sour, pungent, and coarse It pacifies kapha and pittam It increases appetite, is beneficial to skin and eye-sight, is a killer of worms, and purifier of stool, urine, and other excreta from the system

(२)

तद्भाण्डे धितं सर्वमन्नव्यञ्जनसूपकम् ।
अम्लेन वर्जितं चातिदी हितम् ॥

(2)

All sorts of food, prepared in an utensil of this metal, is salutary to the system, and serves to increase the power of digestion, if there is nothing of sour in the materials cooked

अस्य शो रणम् ।

द्रुतमश्वजले क्षिप्तं व ोहं विशुध्यति ।
म्रियते गन्धतालाभ्यां पुटितं तद्यथाविधि ॥

Purification and Incineration of Varta-loha

Varta-loha is purified, if it is melted and immersed into the urine of horse. It is incinerated, if it is subjected to heat by putam after having been smeared with sulphur and orpiment.

अथ त्रिलोहम्।

पञ्चविंशतिः स्वर्णस्य तथा रौप्यस्य षोड़श।
ताम्रस्य दश भागाश्च त्रिलोहं मिलिता मतम्॥
त्रिलोहं सर्वदोषघ्नं परमेव रसा म्।
पाचनं दीपनं चैव सर्व धिविनाशनम्॥

Triloha.

Twenty five parts of gold, sixteen parts of silver, and ten parts of copper, melted together, form what is called the triloha It destroys all the doshas and is a great rasayanam. It increases the power of digestion and is a curer of all the diseases

शोधनमारणम्।

शोधनं मारणं ज्ञेयं त्रिलोहस्य सुवर्णवत्।
अशोधित रितं त्रिलोहं हि विषोपमम्॥

Purification and Incineration of Triloha.

It is purified and incinerated in the same way as gold. Triloha, not properly purified and incinerated, acts like poison

त्रिलोहरसायनम् ।

रक्तिकामानतो भस्म त्रिलोहस्य यथाविधि ।
सर्पिर्मधुवराव्योषसंयुक्तं यस्तु सेवते ॥
पथ्याशी नियतं प्रातः दीर्घायुः स सुखी सदा ।
वलीपलितनिर्मुक्तो भजते विपुलश्रियम् ॥

Triloha Rasayanam.

One who takes every morning one racti of incinerated tri-loha, mixed with honey, clarified butter, triphala, and trikatu, and observes the prescribed diet, lives a healthy, happy, and long life, without being affected by senile decay

भूना   त्त   ्।

भून   ान् स्वर्णभूमि   ान् स्वर्णस   ान् विजानी   त् ।
इत्येवं ज्ञ   ते सत्त्वं तेषां जनुस्थलक्रमात् ॥ *
ाणां द्रावणार्थाय सत्त्वं भूनागजं श्रेयः ।
तदेव परमं तेजः सूतराजेन्द्रव   योः ॥

Essence of Earthworms. *

Gold is the essence of earthworms growing in the vicinity of gold mines The nature of the essence of other earthworms is similarly ascertained with reference to the nature of their place of birth Essence

* द्वितीय ` २३४ पृष्ठं द्रष्टव्यम् ।

* See page 234, Vol II,

of earthworms (whether gold, silver, iron, or copper) is useful for the purpose of liquefaction of diamonds and other hard stones It also increases the potency of mercury and diamonds.

खरसत्वम् ।

धौतं भूनागसम्भूतं मर्दयेद् भृङ्गजद्रवैः ।
निम्बुद्रवैश्च निर्गुण्ड्याः स्वरसैस्त्रिदिनं पृथक् ॥
तद्द्रावणगणोपेतं संमर्द्य वटकीकृतम् । *
निरुध्य दृढमूषायां द्विदण्डं प्रधमेद् दृढम् ॥
स्वतः शीतं समाहृत्य के विनिवेश्य तत् ।
खकान् राजिकातु न् रेणूनतिभरान्विता ॥
द्वादशांशार्कसंयु न् ध्मात्वा तान् खकान् त् ।
प्रक्षाल्य खकानाशु समादाय प्रय : ।
वज्रादिद्रावणं तेन प्रकुर्वीत यथेप्सितम् ॥
खरसत्वमिदं प्रो र यनम त्तमम् ।
द्वित्रमूषासु सत्त्वं भवति निश्चितम् ॥

Khara-sattwam.

Essence of earthworms is to be cleansed with water, and rubbed for one day each with the juice of bhringa-raja, nimboo (lemon fruit), and nirgundi It is then to be rubbed with the Dravana-varga * and

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* ३०५ पृष्ठं द्रष्टव्यम् ।

* See page 305, Vol I

made into a lump, which is to be confined in a strong crucible, and heated steadily for forty eight minutes When cooled of itself, the contents of the crucible are to be taken out and kept on a piece of smooth stone slab from which are to be collected the heavy metallic dusts of the shape of mustard seed. These are to be mixed with one twelfth their weight of copper, and again heated in a crucible The metallic dust is then to be separated from foreign matter by being washed off with water. It is then to be used for the liquefaction of diamond, etc It is called khara-sattwam It is not a good rasayanam (a medicine which can prevent and cure senile decay).

भू   श्रेष्ठसत्त्वपातनविधिः ।

भूमिना न् ... ादाय चतुःप्रस्थमितान् शुभान् ।
...वर्णा...   ...म्भूतभूमिजान् ॥
...तोयैः शीतलैश्च ...रपि ।
...पोषितं मयूरं शूरं वा ...णायुधम् ॥
क्रमेण चारयि...ऽथ तद्वि... समुपाहरेत् ।
क्षाराम्लैः सह संपेष्य विशोष्य च खरातपे ॥
...: खर्परके क्षिप्त्वा भर्जयित्वा मसीं चरेत् ।
मसीं द्रावणवर्गेण संयुक्तां संप्रमर्दिताम् ॥*

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*   डे ३०५ पृष्ठं द्रष्टव्यम् ।

निरुध्य कोष्ठिकामध्ये प्रधमेद् घटिकाद्वयम् ।
शीतलीभूतमूषायाः खोटमाहृत्य पेषयेत् ॥
प्रक्षाल्य रवकानाशु समादाय प्रयत्नतः ।
सुवर्णरेणुवद् ध्मात्वा नवं कृत्वा नियोजयेत् ॥

Extraction of the best essence of earthworms

Four prasthas (4 × 64 tolas) of earthworms are to be collected from the vicinity of mines of gold, silver, copper, or load-stone, and are to be washed by means of turmeric juice and cold water These are then to be gradually made to be eaten by a hungry peacock, boar, or cock, and its stool collected. This stool is to be rubbed with ksharas and amlas, dried by the intense rays of the sun, and then fried in an earthen pot till it turns as black as ink This black powder is to be rubbed with the ingredients which facilitate the melting of hard metal (see page 305, Vol. I), and then heated for forty eight minutes by means of a bellows. When the crucible is cooled, the contents are to be powdered and washed off, and the metalic dust to be collected carefully. This dust is to be mellted like gold dust, and then used as necessary.

अनन्तरोक्तभूनागसत्त्वस्य गुणाः ।

भूनागोत्थ [illegible]मुत्तमतमं श्रीसोमदेवोदितं
दत्तं पादमितं द्विशाणकनकेनैकां गतेनोर्मिक ।*

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* उर्मिकामंगुरीयकम् ।

तद्धौताम्बुविलेपनं स्थिरचरोद्भूतं विषं नेत्ररुग्
शूलं मूलगदं च कर्णजरुजो हन्यात प्रसूतिग्रहम् ॥

Use of the aforesaid essence

Essence of earthworms, as extracted in the aforesaid manner, is the best of all such essences The present process was described by Soma-deva (author of Rasendra Churamani) One eighth tola of this essence, combined with half a tola of gold, is to be made into a finger-ring. The water into which this ring is kept immersed for some time can, by external application only, do away with poisons, both organic and inorganic, eye diseases, colic, piles, diseases affecting the ears, and troubles attending child-birth

भेषजेषु रसप्राधान्यम् ।

अल्पमात्रोपयोज्यत्वादरुचेरप्रसङ्गतः ।
क्षिप्रमारोग्यदायित्वादोषधिभ्योऽधिको रसः ।
असाध्या व्याधि या प्रोक्ता गोषधिभिश्चिकित्सया ।
साध्या प्रायशो । रसचिकित्सनेन हि ॥
उपरसं लुहं विषं ससूतं रस उच्यते ॥
रसात् परतरं नास्ति त्रिषु लोकेषु भेषजम् ।
मृतानि लोहानि रसीभवन्ति
निघ्नन्ति युक्तानि महामयानि ।

अभ्यासयोगाद् दृढदेहसिद्धिं
कुर्वन्ति रुग्जन्मजराविनाशम्॥

Superiority of metallic drugs

A medicine, prepared mainly from mercury and minerals, is superior to that prepared from herbs, in as much as (1) the former can be administered in much smaller doses than the latter, (2) it does not give rise to aversion in the patient who takes it; (3) it cures diseases more quickly than the latter; and (4) it cures diseases which are considered incurable by medicines prepared from herbs. Medicines prepared from mercury, with or without the addition of other minerals, poison, etc are the best of all the medicines known to the world

Incinerated metals assume, to a certain extent, the properties of mercury They can also cure diseases which are troublesome and attended with complications If used for a long time, they can not only cure diseases but also strengthen the body and cure and prevent senile decay

चतुर्थोऽध्यायः ।

अथ रत्नानि ।

जातौ जातौ यदुत्कृष्टं तद्धि प्रचक्षते ।
रत्नश्च वरपाषाणं रमन्ते यत्र मानवाः ॥

रत्नानां प्रकाराः ।

मरकतं चैव माणिक्यं मौक्तिकं तथा ।
नीलमणिर्गोमेदं च वैदूर्य्यं दग्धहीरकम् ॥
स्फटिकं चन्द्रकान्तं च सूर्य्यकान्तं प्रवाल ।
पुष्परागं च राजावर्त्तं च भीष्मकम् ।
एते हि मणयो ज्ञेयाः सूतबन्धनकारकाः ॥
पालङ्कं रुधिरं पूत्ति तार्त्तंजं पीलु चोपलम् ।
सुगन्धिकं च विज्ञेया उपरत्नानि सप्तकम् ॥
यत्नतस्ते प्रयोक्तव्या रसे रसायने तथा ॥*

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* सर्वेषां रत्नोपरत्नानां विस्तृतविवरणार्थं प्रधानतो निम्नलिखिताः ग्रन्था द्रष्टव्याः— बृहत्संहिता, भोजकृतयुक्तिकल्पतरु, विष्णुधर्मोत्तर-पुराणम्, अग्निपुराणम्, गरुड़पुराणम्, तथागस्त्यप्रणीतं रत्नशास्त्रम् ।

CHAPTER IV.

Ratnas (*Gems*)

Gems are precious stones The best of them are as follows —(1) Vajram (diamond), (2) marakata (emerald), (3) manikyam (rubies), (4) mucta (pearls), (5) nila-mani (sapphire), (6) gomedam (zercon), (7) vaiduryam (oriental cat's eye), (8) dagdha-hirakam or vaikrantam (garnet), (9) sphatikam (quartz), (10) chandra-kantam (moon-stone), (11) surya-kantam sun-stone), (12) pravalam (coral), (13) karketam (chrysoberyl or chrysolyte), (14) pusparaga (topaz), (15) rajavarta (lapis lazuli), and (16) bhismakam (a kind of anti-poisonous white quartz).

These gems are used in consolidating mercury

The following are some of the upa-ratnas or minor gems —(1) palanka (onyx), (2) rudhiram (carnelian), (3) puttika (peridote or bottle-green stone), (4) turkshajam (turquoise, biraja, or peroja), (5) pilu (jade), (6) upalam (opal, chalcedony, and agate), and (7) sugandhikam (spinel),

All these ratnas and uparatnas may be used in the preparations of mercury as well as in preparing medicines meant for curing and preventing diseases and senile decay

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* For a detailed account of these stones, see Vrihat Sanhita of Barahamihira (Ist century B C), Jukti-kalpa taru of Bhoja raja, Vishnudharmottara puranam, Agnipuranam, Garura puranam. Ratna-shastram by the sage Agastya, etc.

पञ्चरत्नम्।

(१)

पद्मरागेन्द्रनीलाख्यौ तथा मरकतोत्तमः।
पुष्परागश्च वज्राख्यः पञ्च रत्नवराः स्मृताः॥

The Five Gems

(1)

The following five are reckoned to be gems of superior quality --(1) padma-raga (ruby), (2) indra-nila (sapphire), (3) marakata (emerald), (4) puspa-raga (topaz), and (5) hiraka (diamond)

(२)

नीलकं वज्रकं चेति पद्मरागश्च मौक्तिकम्।
विद्रुमं चेति विज्ञेयं पञ्चरत्नं मनीषिभिः॥

(2)

The following five are gems in ordinary use — sapphire, diamond, ruby, pearl, and coral

ग्रहरत्नानि (नवरत्नम्)।

माणिक्यमुक्ताफलविद्रुमाणि
तार्क्ष्यञ्च पुष्पं भिदुरं च नी ।*
गोमेदकं चाथ विदूरकं च
क्रमेण रत्नानि नवग्रहाणाम्॥

* तार्क्ष्यमिति मरकताख्यं पाषाणम्। [illegible] हीरकम्।

Gems favourite to the planets

Manikya (ruby), mucta (pearl), pravala (coral), turkshya (emerald), puspa-raga (topaz), hiraka (diamond), nila-mani (sapphire), gomedam (zercon), and vaiduryam (oriental cat's eye)—These nine gems are favourites, respectively, to the nine planets, viz. Sun, Moon, Mars, Mercury, Jupiter, Venus, Saturn, Rahu (Dragon's head), and Ket (Dragon's tail) *

व्यवहारयोग्यरत्नानि ।

रसे रसायने दाने धारणे देवतार्चने ।
सुलक्षमाणि सुजातीनि रत्नान्युक्तानि सिद्धये ॥

Gems fit for use

Only gems of excellent qualities should be used in mercurial preparations, in medicines meant to cure and prevent diseases and senile decay, in making gifts to objects of charity (such as priests, astrologers, etc), in being used by one's own self as an article of jewellery conducive to health and happiness, and in making offerings to God. Gems of inferior quality are abortive for each of these purposes.

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* In addition to these nine planets, the Hindu Astronmy recognises five minor planets (See Brihat Parashara Hora Shastram).

अथ वज्रम् ।

हीरकः पुंसि व ोऽस्त्री चन्द्रो मणिवरश्च सः ।
हीरश्च रत्न ख्यं च सूचीमुखं वरारकः ॥
अभेद्यमशिरं दृढं षट्कोणं भार्गवं तथा ।
बहुधारश्च वज्राह्वं शतकोटी महामणिः ॥
आयुःप्रदं झटिति सद्गुणदं च वृष्यम्
दोषत्रयप्रश स यघ्नम् ।
सूतेन्द्रबन्धवधसद्गुणकृत् सुदीपि
मृत्युञ्जयं तदमृतोप म् ॥

Vajra or Hiraka (Diamond)

Diamond is increaser of longevity It makes its good qualities felt quickly It is nutritious pacifier of the three doshas, and curer of all the diseases It improves the quality of the consolidation and killing of mercury, is an increaser of the power of digestion, is an enemy of death, and is like nectar itself.

वज्राणां वर्णाः ।

हीरः श्वेतः स्मृतो विप्रो लोहितः क्षत्रियः स्मृतः ।
पीतो वैश्योऽसितः शूद्रश्चतुर्वर्णात्मकश्च सः ॥
रसायनेऽत्र विप्रः सर्वसिद्धिदायकः ।
स्वल्परसायनः क्षत्रः सफलो रोगनाशने ॥

वैश्यो धनप्रदः प्रोक्तस्तथा वादे फलप्रदः ।
शूद्रो नाशयति व्याधीन् वयःस्तम्भं करोति च ॥

Colour of Diamonds

Diamonds are of four different colours, viz. white, red, yellow, and black. The white variety is beneficial in all respects, and is a rasayanam or curer and preventer of diseases and senile decay. The red variety also is, to a certain extent, a rasayanam. The yellow variety is a giver of wealth (if worn with a ring), and is useful in alchemical operations. The black variety is a destroyer of diseases and a preventer of senile decay.

वज्राणां भेदान्तरम् ।

(१)

स्त्रं वाऽष्टफलकं षट्कोणमतिभासुरम् ।
अम्बुदेन्द्रजलाभासं शुभ्रं पुंवज्रमुच्यते ॥
तदेव चिपिटाकारं स्त्रीवज्रं वर्त्तुलायतः ।
वर्त्तुलं कुण्ठकोणाग्रं किञ्चिद्गुरु नपुंसकम् ॥

Another Classification of Diamonds

(I)

Diamonds are of three kinds, viz (1) masculine, (2) feminine, and (3) neuter. The former have six or eight angles or eight faces. They are very bright, and resemble, in lustre, rain drops falling at the time

of the appearance of a rainbow in the sky. They are flat-shaped, whereas feminine diamonds are cylindrical, depressed at the extremities, and are slightly heavy

(२)

सुवृ :फल ्णास्तेजोयुक्ता बृहत्तराः ।
पु स्ते स ख्याता रेखाविन्दुविवर्जिताः ॥
रेखाबिन्दुसमायुक्ताः षड़स्रास्ते स्त्रियः स्मृताः ।
त्रिकोणाः ला दीर्घा विज्ञेयास्ते नपुंसकाः ॥

(2)

Masculine diamonds are well-rounded, well-faced, bright, comparatively big in size, and devoid of lines and spots

Feminine diamonds have six angles and are full of spots and lines. The neuter diamonds are three-angled, thin, and elongated

वज्रभेदानां गुणाः ।

ेषु पुरुषाः श्रेष्ठा वेधक रसबन् : ।
स्त्रियः कुर्वन्ति य न्तिं स्त्रीणां सुखप्रदाः ॥
नपुंसकास्त्ववी ः स्युरका : सत्त्ववर्जिताः ।
रि : स्त्रीभ्यः प्रदातव्यं क्लीवं क्लीवे ्योजयेत् ॥
सर्वेभ्यः सर्वदा देयाः पुरुषा वीर्य्यवर्द्धनाः ।
पुत्रकामा न धारयेन् नारी कदाचन ॥

Merits of different kinds of diamonds

Masculine diamonds are the best of all They are able to help the transmutation of metals and to consolidate mercury. Feminine diamonds bring happiness to women and enhance their beauty. Neuter diamonds are impotent, useless, and devoid of essence

Feminine diamonds are to be worn by women, neuter ones by hermaphrodites, but masculine diamonds may be worn always by any person, male, female, or hermaphrodite. A woman who wants to give birth to a son should on no account wear a diamond

उ लक्षणानि।

(१)

र मं नीचे गोमेदविद्रुमे।
नायसोल्लिख्यते रत्नं हित्वा मौक्तिकविद्रुमौ॥
पाषाणेनापि च प्राय इति रत्नविदो जगुः।
न जरां यान्ति र नि विद्रुमं मौक्तिकं विना॥
गुरुता नां गौरवाधार रकम्।
वज्रे तद्वैपरीत्यं हि सूरयः परिचक्षते॥
लघु ज्ञेयं तरत्यम्भसि तत् ख ।
पञ्चदोषविनिर्मुक्तं स्निग्धं च चन्द्ररश्मिवत्॥

Characteristics of good Diamond

(1)

Vajram or diamond is the best of all gems whereas gomeda (zercon) and pravala (coral) are inferior to the rest None of the gems, except pearl and coral, can be scratched by iron, or even by stones, generally None of the gems, except pearls and corals, undergoes decay. Heaviness is generally an indicator of preciousness in gems ; but the case is quite the reverse with diamonds Diamonds of superior quality are so light as to float on water They are free from the five defects (to be described below) and are as soothing as moon's rays

(२)

यत् पाषाणतले निकाषनिकरे नोद्घृष्यते निष्ठुरे ।
न्योप ोहमुद्गर खैर्लेखान्न यात्याहनम् ।
य न्यन् निजलीलयैव दलयेद् ण वा भिद्यते
तज्जात्यं कुलिशं वदन्ति कुश : श्लाघ्यं महार्घं
च तत् ॥

(2)

Diamond of an excellent quality is that which cannot be worn out by being rubbed with the surface of even a very hard touch stone; which cannot be cracked even by the sharp edges of other stones, iron instruments, etc, which can easily create a

crack on other substances, and which can be rent asunder by another diamond only Such diamonds are of a high order and very precious.

अशुभवज्रस्य लक्षणानि ।

भस्माभं कपादश्च रेख न्तं च म् ।
धारमलिनं विन्दुत्रासयुक् स्फुटितं तथा ।
नीलाभं चिपिटं रुक्षं तद्वज्रं दोषलं त्यजेत् ॥

Characteristics of bad diamonds

Diamonds of the following description are bad — (1) Those which are of ash colour, (2) those which have got spots of the shape of a crow's feet, (3) those which are marked by lines, (4) those which are cylindrical, (5) those which darken or soil their foils or receptacles, (6) those which have got spots, (7) those which have got cracks, (8) those which are rent asunder, (9) those which are of blue colour, 10) those which are flat-shaped, and (11) those which are coarse

Such diamonds are to be avoided

सर्वर साधारणदोषाः ।

गार सश्च बिन्दुश्च रेखा च जलगर्भता ।*
सर्वरत्नेष्वमी पञ्च दोषाः साधारणा मताः ।
चेत्रतोयभवा दोषा रत्नेषु ते न्ति न ॥

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* गारः कर्दमं मलमित्यर्थः ।

Defects found in gems in general.

The following five are the defects found in gems in general —dirt, crack, spots, lined spot, and bubble spot

Gems are not affected by defects in the soil in which they are found or in the water in which they are submerged

शोधनमारणहीनव गुणाः।

अशुद्धं कुरुते कुष्ठं पार्श्वव्यथां तथा।
पाण्डु पगुरुत्वं च मात् संशोध्य मारयेत्॥

Evil effects of Diamonds, not properly purified and incinerated

Diamonds, not properly purified and incinerated, give rise to leprosy, pain in the side ribs, anemia, inflammation, and heaviness of the limbs. Diamonds should, therefore, be properly purified and incinerated.

शोधनम्।

प्रथमोविधिः।

कुलत्थ थितैः स्विन्नं कोद्र थितेन वा।*
यामैकं दोलिकायन्त्रे वज्रं शुध्यति निश्चितम्॥

* कोद्रवः कोदो इति भाषा।

Purification of Diamonds.

First process

Diamond is purified, if it is boiled for three hours, by means of a Dola-Jantram, with the decoction of kulattha or kodrava (a kind of grass paddy).

द्वितीयोविधिः ।

व्याघ्रीकन्दयुतं व दोलायन्त्रेण पाचि म् ।*
सप्ताहं कोद्रव थे कौलत्थे विमलं भवेत् ॥

Second process.

Diamond is purified, if it is put inside the tuber of vyaghri (red eranda plant or kantakari), and boiled for seven days, by means of a Dola-Jantram, with the decoction of kodrava and kulattha.

तृतीयोविधिः ।

गृहीत्वा तु शुभं वज्रं व्याघ्रीकन्दोदरे क्षिपेत् ।
महिषीविष्ठया लिप्त्वा करीषाग्नौ विपाचयेत् ॥
निशायां तु चतुर्यामं निशान्ते चाऽश्वमूत्रके ।
सेचयेत् तानि कं सप्तरात्रेण शुध्यति ॥

Third process

Diamond of excellent quality is to be put inside the tuber of vyaghri (red eranda plant or kantakari).

* व्याघ्रीति रक्तैरण्डः कण्टकारी वा ।

This is to be covered on all sides with the stool of a she-buffalo, and burnt by means of a fire made of cow-dung cakes burning the whole night, at the close of which the diamond is to be immersed into horse's urine This process is to be performed seven nights resulting in the purification of the diamond

चतुर्थोविधिः ।

मेघनादा शमी श्यामा शृङ्गी मदनकोद्रवः ।
लत्थं वेतसं चैवमगस्त्यं सिन्धुवारकः ॥
एतेषां थैवं जम्वीरमध्यगम् ।
दोल न्त्रे त्र्यहं पाच्यं एवं वज्रं विशुध्यति ॥

Fourth process

Diamond is purified, if it is kept inside a lime fruit and boiled for three days by means of a Dola-Jantram with a decoction of meghanada, shami, shyama, shringi, madana, kodrava, kulattha, vetasa, agastya, (vasaka or vaka), and nirgundi, mixed with a sufficient quantity of water.

पञ्चमोविधिः ।

व्याघ्रीकन्दगतं मृदा लिप्तं पुटे पचेत् ।
होरात्रं समुद्धृत्य हयमूत्रेण सेचयेत् ।
वज्रीक्षीरेण सिञ्चेद् वा त वं खलु शुद्धये ॥

Fifth process

Diamond is purified, if it is kept inside the tuber of a vyaghri plant coated on all sides with mud, heated by putam for twenty four hours, and then immersed into horse's urine or milk of snuhi

षष्ठोविधिः ।

स्वेदयेद् दोलिकायन्त्रे जयन्त्याः स्वरसेन च ।
मणिमुक्ताप्रवालानि यामकेन विशुद्धये ॥

Sixth process

Any gem or ratna is purified, if it is boiled in a Dola Jantram for one hour with the juice of jayanti leaves

वज्राणां मारणम् ।

(१) विप्रवज्रस्य मारणम् ।

प्रथमोविधिः ।

अश्वत्थं बदरी झिण्टी [illegible] कर्कटारि च ।
तुल्यं स्नुहीपयः पिष्ट्वा वज्रं तद्गोलके क्षिपेत् ।
रुद्ध्वा गजपुटे पाकाद् विप्रवज्रं मृतं भवेत् ॥

Incineration of Diamonds

(1) *White diamonds*

First process

Diamond of white colour is incinerated, if it is heated by Gajaputam, after having been coated on

all sides with a paste made of aswattha, vadari (plum), jhinti, makshikam, and shell of crab, all rubbed together with an equal quantity of milk of snuhi.

द्वितीयोविधिः ।

गारुड़ी गन्धकं तालं बदरीरससंप्लुतम् ।
अश्वत्थस्वरसैर्भाव्यं पुटेत् पिण्डं सरक्तकम् ।
म्रियते तेन योगेन ब्रह्मवज्रं हि त   : ॥

Second process.

Diamond of white colour is incinerated, if it is subjected to heat by putam after having been kept inside a lump made of patala-garuri, sulphur, and orpiment, rubbed with the juice of plums, and then subjected to bhavana, first, with the juice of aswattha and then with blood (preferably bug's blood).

(२) क्षत्रियवज्रस्य मारणम् ।

प्रथमोविधिः ।

करवीरं मेषशृङ्गं बदरकमुडुम्बरम् ।
अर्कदुग्धं समं पिष्ट्वा विप्रवन्मारयेन्नृपम् ॥*

(2) *Red diamonds*

First process.

Diamond of red colour is to be incinerated, if it is heated by Gajaputam, after having been coated

* नृपमिति क्षत्रियवर्णवज्रम् ।

on all sides with a paste made of karabira, meshashringi, vadara (plum), udumbara, all rubbed with an equal quantity of milk of arka plant.

द्वितीयोविधिः ।

नीलं च शङ्खचूर्णं च शिलाभूनागशूरणम् ।
म्रियते रक्तवज्रकमेषां मध्ये पुटेन हि ॥

Second process.

Diamond of red colour is incinerated, if it is subjected to heat by putam, after having been confined within a lump made of nila plant (indigo), powdered conch shell, manas-shila, earthworms, and shurana.

(३) वैश्यवज्रस्य मारणम् ।

प्रथमोविधिः ।

ब चातिब गन्धं पेषयेत् कच्छपास्थि च ।
एतैश्च वारुणीदुग्धैर्म्रियते वैश्यो विप्रवत् ॥

(3) *Yellow diamonds*

First process.

Diamond of yellow colour is to be incinerated, if it is heated by Gajaputam, after having been coated on all sides by a paste made of bala, atibala, sulphur, shell of tortoise, all rubbed with an equal quantity of the milk of indrabaruni.

द्वितीयोविधिः।

स्नुह्यर्ककरवीरं च गं दरदं :।
उत्तमैर्वारुणीक्षीरैर्वैश्‌ नां मारणं पुटैः॥

Second process.

Diamond of yellow colour is incinerated, if it is subjected to heat by putam after having been rubbed with the milks of snuhi, karabira, bata (banyan), and Indra-varuni, mixed with earthworms and hingula (cinnabar).

शूद्रवज्रस्य मारणम्।

प्रथमोविधिः।

रसोनं शूरणं शङ्खं समं पेष्यं मनःशिला।
वटक्षीरेण मूषान्तर्विप्रवच्छूद्रमारणम्॥

(4) *Black Diamonds*

First process

Diamond of black colour is to be incinerated, if it is subjected to heat by Gajaputam, after having been coated on all sides with a paste made of shuranam, garlic, conch-shell, manas-shila, all rubbed with an equal quantity of the milk of banian tree

द्वितीयोविधिः।

गन्धाश्मकं घृतं तालं मेषशृङ्गं समांशकम्।
विषं न्तं स्नुहीक्षीरं नारीपुष्पं पयः तम्।
एभिर्विलिप्तमूषायां नात् शूद्रमारणम्॥

Second process.

Diamond of black colour is incinerated, if it is heated in a crucible, the inner surface of which is coated with a paste made of sulphur, clarified butter orpiment, ram's horn, aconite, load stone, milk of arka, and menstrual excretion of women—all equal in quantity and rubbed with milk.

स्त्रीनपुंसकभेदेन वज्रानां मारणे वैशिष्ट्यम् ।

स्त्रियस्तेषां म्रियन्ते च तत्तदोषधियोगतः ।
चतुर्णामोषधिव्यूहैर्म्रियते च नपुंसकम् ॥

Special directions

Feminine diamonds are to be incinerated in the same way as described above Neuter diamonds are to be incinerated with all the herbs combined, required for the incineration of masculine diamonds of four different colours, as described above.

सामान्येन व   णाम् ।

प्रथमोविधिः ।

त्रिः   कृत्वा ततृतप्तं   मूत्रेण सेचयेत् ।
मतकुणैस्ता   पिष्ट्वा तद्गोले   लिशं क्षिपेत् ॥
वाजिमूत्रेण सिक्तं पूर्वोदि   ः ।
भस्मीभवति   वज्रवत् कुरुते तनुम् ॥

(2) *Incineration of Diamonds, irrespective of colour.*

First process.

Diamond is to be heated and immersed into the urine of ass. Orpiment is to be rubbed with bug's blood and made into a lump, inside which the diamond is to be kept. It is then to be heated strongly and immersed into the urine of horse. Performance of this process for 21 times results in the incineration of the diamond

द्वितीयोविधिः ।

ऊर्णायुश्रृङ्गं परिपिष्य पिण्डमेतस्य मध्ये तु
निधाय वज्रम् ।
पिण्डेऽथवाऽधाय च वज्रबल्ल्याः पुटत्रयं तस्या रसे
विदध्यात् ॥
-त्युरेवं भवेदस्य व ख्यस्य न संशयः ॥

Second process.

Horn of ram is to be rubbed with the juice of asthi-sanhara and made into a lump. Diamond is to be kept inside this lump and subjected to heat by putam. Three such putams result in its incineration. A lump made of asthi-sanhara creeper may be made use of in the place of a lump made of ram's horn.

तृतोयोविधिः ।

द्विवर्षरूढ़कार्पासमूलं कन्यामूलैः सह ।
नारीस्तन्येन संपिष्य वज्रं निधापयेत् ।
अनेन म्रियते वज्रं पुटपाकविधानतः ॥

Third process.

Diamond is incinerated, if it is heated by putam, after having been kept inside a paste made of the roots of cotton plant of two years' standing and the roots of kanya, all rubbed with a sufficient quantity of human milk.

चतुर्थोविधिः ।

मेष भुजङ्गारि कूर्म्मपृष्ठाम्लवेतसैः ।
गजदन्तसमं पिष्टा वज्रीदुग्धेन गोलकम् ।*
। वज्रं मार्यते धमनेन च ॥

Fourth process.

Ram's horn, snake's bone, tortoise shell, amla-vetasa, and elephant's tusk—all these are to be pounded and made into a lump by being rubbed with the milk of snuhi. Diamond is incinerated, if it is kept confined within this lump and heated strongly.

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* गजदन्त इत्येतस्य स्थले शशदन्त इति पा ।

पञ्चमोविधिः ।

त्रि [illegible] गबल्लयास्तु कार्पासस्याऽथ [illegible] ।
पिष्ट्वा तन्मध्यगं वज्रं मूषामध्ये निरोधयेत् ।
पचेद्गजपुटे [illegible] म्रियते पुटसप्तकैः ॥

Fifth process.

Tambula creeper (betel) of three years' standing, as well as roots of a cotton plant are to be rubbed together and made into a paste. Diamond is incinerated, if it is confined within this paste and heated by Gaja putam for seven times, a fresh paste being used each time

षष्ठोविधिः ।

मत्कुणानान्तु र [illegible] न [illegible] ऽतपशोषितम् ।
लि [illegible] वितं तद्वच्चूर्णिता च [illegible] :शिला ॥
एते च बदरी [illegible] पुटे [illegible] ।
पुनर्लेप्यं पुनः पाच्यं [illegible] म्रियते [illegible] : ॥

Sixth process.

Diamond is to be subjected to bhavana with the blood of bugs for seven times, and dried each time in the sun. Manas-shila is also to be similarly treated. Both these things are to be put together, covered by means of plum leaves, and then heated by putam. Performance of this process for seven times results in the incineration of the diamond.

सप्तमोविधिः ।

वज्रं महानदीशुक्तौ क्षिप्रं भाव्यं मुहुर्मु : ।
स्नुह्यर्कोन्मत्तकन्या द्रवेणैकेन चाह्नि ॥
कृष्णाकर्कटमांसे तत्क्षिप्त्वा च वेष्टयेद्बहिः ।
भूनागस्य मृदा स तं भ त्वमाप्नुयात् ॥

Seventh process.

Diamond, kept in shells of oyster growing in a big river, is to be subjected to bhavana, quickly and over and over again, with the juices of snuhi, arka, dhatura, and kanya, a separate day being allotted to each of these juices. The diamond is then to be surrounded on all sides with the flesh of black crab. The oyster shells are then to be closed and covered by means of mud, raised by earth-worms. The whole thing is then to be heated strongly resulting in the incineration of the diamond.

अष्टमोविधिः ।

रक्तोत्पलस्य मूलैश्च मेघनादस्य ट्मलैः ।
पिण्डितैर्वै तं व भ त्यलम् ॥

Eighth process.

Diamond is incinerated, if it is heated after having been kept inside a paste, made of the roots of red water-lily and buds of meghanada.

नवमोविधिः ।

कांस्यपात्रे हि भे य मूत्रे वज्रं विनिःक्षिपेत् ।
त्रिःसप्तकृत्वः सन्तप्तं वज्रमेवं मृतं भवेत् ॥

Ninth process

Diamond is incinerated, if it is heated 21 times and immersed each time into frog's urine, kept in a bell-metal pot.

दशमोविधिः ।

नीलज्योति कन्दे विशोषितम् ।
भस्मत्वमायाति कर्मवज्ज्ञानवह्निना ॥

Tenth process.

Diamond is incinerated, if it is subjected to a necessary amount of heat after having been rubbed with the tuber of a blue jyotismati creeper and dried in the sun.

एकादशोविधिः ।

विलिप्तं मत्कुणस्यास्त्रैः स वि ोषितम् ।
कासमर्दरसापूर्णे लौहपात्रे निवे ितम् ॥*
सप्तवारं परिध्मातं व म भवेत् खलु ।
ब्रह्मज्योतिर्मुनीन्द्रेण क्रमोऽयं परिकीर्त्तितः ॥

* लौहपात्रे इत्येतस्य स्थले पात्रे इत्येतत् पाठान्तरम् ।

Eleventh process.

Diamond is incinerated, if it is smeared with the blood of bugs, dried in the sun, and then heated and immersed into the juice of kasa-marda kept in an iron pot, the whole process being repeated for seven times. This process was described by the great sage Brahma-Jyoti.

द्वादशोविधिः।

मदनस्य फलोद्भूतरसेन चौ ए गकैः।
कृतकल्केन संलिप्य पुटेद् विंशतिवारकम्।
वज्रचूर्णं भवेद्वर्य्यं योजयेच्च र दिषु॥

Twelfth process

Diamond is reduced to ashes of an excellent quality, if it is heated by putam for twenty times, after having been smeared each time with a paste. made of earthworms, rubbed with the juice of the fruits of madana tree.

त्रयोदशोविधिः।

मत्कुणरक्तेन चतुर्वारं विभावितम्।
सुगन्धिमूषि मांसैः कृत्तैर्विमर्द्य वेष्टयेत्॥
पुटेत् पुटैर्वाराहाख्यैस्त्रिंशद्वारं ततः परम्।
ध्मात्वा ध्मात्वा शतं वारान् कुलत्थक्काथके क्षिपेत्
कुलत्थ थसंयुक्तलकुचद्रवपिष्टया।
शिलया लिप्तमूषायां वज्रं क्षिप्त्वा निरुध्य च॥

रं पुटेत् सम्यग् विशुष्कैश्च [illegible]ः ।
शतवारं ततो ध्मात्वा निक्षिप्तं [illegible]दे ॥
नि[illegible] म्रियते [illegible] वारितरं भवेत् ।
वाक् चन्द्रसेन[illegible] तद् विमार[illegible] ।
त्ययसंयुक्त क्वान् र [illegible]तुकी ॥

Thirteenth process.

Diamond is to be subjected to bhavana with bug's blood for four times It is then to be covered on all sides with the flesh of rats, cut into pieces, and heated by Baraha-putam for thirty times. It is then to be heated for 100 times and immersed each time in decoction of kulattha The diamond is then to be heated by putam for eight times after having been confined in a crucible, the inner surface of which is to be coated with a paste made of decoction of kulattha, juice of lakucha, and manas-shila. The diamond is then to be heated for 100 times, and immersed each time in purified mercury, with the result that the diamond is reduced to ashes which can float on the surface of water

This process was described by the chemist, Chandra Sena, founder of the Chandra dynasty

चतुर्दशोविधिः ।

हिंगुसैन्धवसंयुक्तक्काथे कुलत्थजे क्षिपेत् ।
तप्तं तप्तं पुनर्वज्रं भूयाच् चूर्णं त्रिसप्तधा ॥

Fourteenth process

Diamond is incinerated, if it is heated for 21 times, and immersed each time into the decoction of kulattha, mixed with hingu and saindhava.

पञ्चदशोविधिः ।

वज्रादिसर्व मारणम् ।

रसो हंसं शिला गरुडं गन्धटंकणम् ।
भून विमलं वंगं मेषशृङ्गं च चुम्बकम् ॥
शुक्रशोनितसंयुक्तं धिभावितम् ।
षालेपप्रयोगेन रणं ध्रुवम् ।
एवं स्थाने नियोजयेत् ॥

Fifteenth process.

General method of Incineration of all the Gems

Diamond and other gems are incinerated, if heated by putam, after having been confined in a crucible the inner surface of which is coated with a paste made of mercury, hingula, manas-shila, haritala, swarna-makshika, sulphur, tankanam, earth-worms, bimala, vanga, ram's horn, load stone, semen, and blood—all these mixed together and subjected to bhavana with the juices of some of the herbs generally used in incineration of gems

वज्रस्य व्यवहारः ।

(१)

तद्वज्रं चूर्णयित्वाऽथ किञ्चिट्टङ्कणसंयुतम् ।
खरभूनागसत्त्वेन विंशतिगुणितेन च ।
तुल्यस्वर्णेन तद्ध्मातं योजनीयं रसादिषु ॥

Uses of Diamond

(1)

The diamond, thus prepared and powdered, should be mixed with a little of borax, khara -satwa (see page 154), twenty times in weight of the diamond, and incinerated gold, equal in quantity to the diamond,—all these are to be rubbed together and heated. The product may be used in medicines

(२)

त्रिगुणेन रसेनव संमर्द्य गुटिकीकृतम् ।
मुखे धृतं करोत्याशु चलद्दन्तविबन्धनम् ॥

(2)

Incinerated diamond, rubbed with three times its weight of mercury, and made into a pill, strengthens even a tottering tooth and makes it steady.

(३)

त्रिंशद्भागमितं हि वज्रभसितं स्वर्णं गिकं
तारं चाष्टगुणं सि मृतवरं रुद्रांशकं भ्रकम् ।

पादांशं ख ताप्यकं वसुगुणं वैक्रान्तकं षड्गुणं
भागोऽप्युक्तरसे रसोऽयमुदितः षाड्गुण्यसंसिद्धये ॥

(3)

Thirty parts of incinerated diamond, four parts of gold, eight parts of silver, eleven parts of white shankhi, four parts of mica, eight parts of swarnamakshika, and six parts of vaikranta—all these are to be mixed together and used with mercury for the enhancement of its properties by six times.

(४)

सूतभ द्ध संयुक्तं मृतवज्रस्य ।
मृताभ्रसत्त्वमुभयोस्तुलितं परिमर्दितम् ॥
क्षौद्राज्यसंयुतं त्रं च सेवितम् ।
निहन्ति सकलान् रोगान् परमेतद् र ॥

(4)

Ashes of diamond, with half its quantity of incinerated mercury, ashes of the essence of mica, equal in quantity to both,—all these are to be rubbed together and taken in doses of one racti a day with honey and clarified butter It cures all the diseases It is a great rasayanam.

व मृदूकरणम् ।

मातुलुंगान्तरे वज्रं रुद्ध्वा लिम्प्यान् मृदा बहिः ।
पुटेत् पश्चात् ख्ये हि शतशो यत्नतो धीमान् ॥

नागवल्ल्याद्रवैर्लिप्तं तत्पत्रेणैव वेष्टयेत् ।
भूमध्ये च स्थितं यावत् तद्वज्रं मृदुतां व्रजेत् ॥

Softening of Diamonds.

Diamond is to be confined within a matulunga fruit, covered on all sides with mud. It is then to be subjected to heat by Gaja-putam for a hundred times. Next is it to to smeared with the juice of tambula (betel) leaves, wrapped up with the leaves of the same creeper, and buried deep into the earth for some time resulting in the softening of the diamond.

वज्रस्य द्रुतिः ।

(१)

वज्रबल्ल्यन्तरस्थं च कृत्वा वज्रं निरुत्थितम् ।
अम्लभाण्डगतं स्वेद्यं सप्ताहाद् द्रवतां व्रजेत् ॥

Liquefaction of diamond.

Ashes of diamond, incapable of being restored to their former condition, are to be kept inside an asthisanhara creeper and immersed into a vessel filled with a sour vegetable juice (such as lime juice), and then heated for seven days with the result that it turns into a liquid.

सर्वरत्नानां द्रुतिः ।

(२)

रामठं प   वणं क्षाराणां त्रितयं तथा ।
मांसद्रवोऽम्लवेतसश्चुल्लिका   णं त   ॥
स्थूलं कुम्भी   तथा   मुखी शुभा ।*
द्रवन्ती च रुदन्ती च पयस्या चित्रमूलकम् ॥
दुग्धं स्नुह्यास्तथार्कस्य   संमर्द्य   तः ।
गोलं विधाय तन्मध्ये प्रक्षिपेत् तदनन्तरम् ॥
गुणवन्नवरत्नानि जातिमन्ति   नि च ।
भूर्जेण गोलकं कृत्वा सूत्रे   वेष्ट्य   तः ॥
पुनर्वस्त्रेण संवेष्ट्य दोलायन्त्रे निधाय च ।
सर्वाम्लयुक्तधान्याम्लपरिपूर्णघटोदरे ॥
अहोरात्रत्रयं   स्वेदयेत् तीव्रवह्निना ।
तस्मादाहृत्य संक्षाल्य   द्रुतिमाहरेत् ॥
रत्नतुल्यप्रभा लघ्वी देहलो.करी शुभा ॥

Liquefaction of all the gems.

(2)

Hingu, five salts, the three ksharas, that variety of amla-vetasa which can decompose flesh into a liquid, nava-sara, well-developed and

* कुम्भीफलमिति जयपालबीजम् । ज्वालामुखीति भल्लातकम् ।

सर्वरत्नानां द्रुतिः ।

(२)

र [illegible] ठं पञ्चलवणं क्षाराणां त्रितयं तथा ।
मांसद्रवोऽम्लवेतसश्चुल्लिकालवणं तथा ॥
स्थूलं कुम्भीफलं [illegible] तथा ज्वालामुखी शुभा ।*
द्रवन्ती च रुदन्ती च पयस्या चित्रमूलकम् ॥
दुग्धं स्नुह्यास्तथार्कस्य सर्वं संमर्द्य यत्नतः ।
गोलं विधाय तन्मध्ये प्रक्षिपेत् तदनन्तरम् ॥
गुणवन्नवरत्नानि जातिम[illegible]न्ति शुभानि च ।
भूर्जेण गोलकं कृत्वा सूत्रेणावेष्ट्य यत्नतः ॥
पुनर्वस्त्रे [illegible] संवेष्ट्य दोलायन्[illegible] निधाय च ।
सर्वाम्लयुक्तसन्धानपरिपूर्णघटोदरे ॥
अहोरात्रत्रयं [illegible] वत् स्वेदयेत् तीव्रवह्निना ।
तस्मादाहृत्य संक्षाल्य रत्नजां द्रुतिमाहरेत् ॥
रत्नतुल्यप्रभा लघ्वी देहलोहकरी शुभा ॥

Liquefaction of all the gems.

(2)

Hingu, five salts, the three ksharas, that variety of amla-vetasa which can decompose flesh into a liquid, nava-sara, well-developed and

* कुम्भीफलमिति जयपालबीजम् । ज्वाला[illegible]मीति भल्लातकम् ।

well-ripened jayapala seeds, bhallataka, dravanti, rudanti, bidari, chitraka roots, milks of snuhi and arka—all these are to be rubbed together and made into a lump, into which is to be kept any of the nine gems of excellent quality. The lump is then to be wrapped up with leaves of bhurja (birch) tree, and again covered with a piece of cloth. It is then to be boiled by means of a Dola-Jantram containing fermented liquid mixed with all the amlas Strong heat is to be applied for 72 hours at a stretch, after which the gem, in a state of liquefaction, is to be collected from inside the vessel This liquid has the glaze of gems It is light It makes the body as strong as iron

(३)

केतकीस्वरसं ग्राह्यं सैन्धवं स्वर्णपुष्पिका ।*
इन्द्रगोपकसंयुक्तं सर्वं भाण्डे विनिक्षिपेत् ॥
सप्ताहं स्वेदयेत् तस्मिन् वै न्तं द्र व्रजेत् ।
लो.ाष्टके तथा वज्रे प त् स्वेदनाद् द्रुतिः ॥
जायते सन्देहो योग :।
कुरुते ोगराजोऽयं र णां परम् ॥

(3)

Juice of ketaki flower, rock-salt, swarna-flower, and indragopa insect—all these are to be kept in a vessel Diamond and all the other stones, and

* स्वर्णपुष्पीति स्वर्णयूथी विषलाङ्गली वा ।

metals are liquefied, if mixed and boiled for seven days with this solution

वज्रविकारशान्तिः ।

सितामधुघृतैः   र्द्धं गोदुग्धं दिन   कम् ।
विधिना सेवितं हन्ति ज्रदोषं चिरोत्थितम् ॥

Removal of evil effects of diamond, not properly incinerated.

Cow's milk, taken for seven days with sugar-candy, honey, and clarified butter, does away with the evil effects of diamond, not properly incinerated.

शोधनक्रमः ।

व्याप्नुवन्त्यङ्गमङ्गानि तैलबिन्दुरिवाम्भसि ।
न विना शोधनं   धातवोमणयोऽपि च ॥
रोगोपशमकर्त्तारः शोधनं तेन वच्यते ।
शो   मारणै हीना हेयास्ते विषवत् सदा ॥

Purification of Gems in general.

Metals, minerals, and gems do not spread through the different parts of the body, if not properly purified. They are positively harmful, if used without purification and incineration

तेषां शोधनस्य न्यविधिः।

(१)

पुंवज्रं गारुड़ोऽङ्गारं माणिक्यं पुष्पकं तथा।
वैदूर्य्यं च गोमेदं मौक्तिकं च प्र लकम्॥
एतानि नवरत्नानि शानि सुधारसैः।
शोधितानि यथाविधि मारितानि च :॥
शुध्यत्यम्लेन माणिक्यं जयन्त्या मौक्तिकं तथा।
विद्रुमं क्षारवर्गेण तार्क्ष्यं गोदुग्ध ॥
पुष्परागश्च सन्धानैः लत्थ थसंयुतैः।
तण्डुलीयजलैर्वज्रं नीलं नीलीरसेन वा।
रोचनाभिश्च गोमेदं वैदूर्यं त्रिफल लैः॥

General Process of purification of gems

(1)

Masculine diamond, emerald, sapphire, ruby, topaz, cat's eye, zercon, pearl, and coral—these nine gems are like nectar itself, if purified and incinerated in the prescribed manner

(1) Ruby, (2) pearl, (3) coral, (4) emerald, (5) topaz, (6) diamond, (7) sapphire, (8) zercon, and (9) cat's eye—these nine gems are purified by being boiled with the following, respectively —(1) a sour vegetable juice, (2) juice of jayanti, (3) all the ksharas, (4) cow's milk, (5) fermented liquids mixed with the decoction of kulattha, (6) juice of tanduliya,

(7) juice of indigo, (8) go-rochana (dried bile of a cow sometimes found deposited in its horns), and (9) decoction of triphala

(२)

कुलत्थस्य पचेद्द्रोणं वारिणा णेन च।
तेन पादावशेषेण श्याश्च मणयः शिलाः॥
आतपे त्रिदिनं शुष्कं काथसिक्तं पुनः पुनः।
एवं शुध्यति तत् मारणीयं ततः परम्॥

(2)

One drona of kulattha is to be boiled with eight dronas of water Gems and stones are to be boiled with this decoction They are then to be dried in the sun for three days, saturated all this while with the same decoction, put upon them over and over again This is how the gems are purified.

(३)

अम्लक्षारविपाचितं तु लोहं वि भवेत्।
माक्षिकोऽपि शि ऽपि त्थग लं च
क् त॥
मुक्ताविद्रुमशुक्ति काऽथ वरा : :।
जायन्तेऽमृ न्नि : सि च क्षिप्तः शुभः
द्रुबलिः॥

(3)

All sorts of metals, makshika, manas-shila, tutthaka, abhra, haritala, mucta (pearl), pravala (coral), shucti (oyster-shell), chapala, and cowri-shells are purified, if boiled with a solution of vegetable acids and alkalis (ksharas) Sulphur is purified, if boiled in the same way and then immersed (through a piece of dry cloth) into milk.

(४)

१७२ पृष्ठे षष्ठोविधिर्द्रष्टव्यः ।

(4)

See Process VI page 172

अथ वज्रेतररत्नानां भस्मक्रमः ।

प्रथमोविधिः ।

लकुचद्रवसंपिष्टैः शि गन्धकतालकैः ।
वज्रं विनाऽन्यरत्नानि म्रियन्तेऽष्टपुटैः खलु ॥

Incineration of gems other than diamond.

First process.

All the gems, with the exception of diamond, are incinerated, if subjected to heat by putam for eight times, after having been smeared each time with a paste made of manas-shila, gandhaka, and haritala, rubbed with the juice of lakucha.

द्वितीयोविधिः ।

कुमार्या तण्डूलीयेन न्येन च निषेचयेत् ।
प्रत्येकं सप्तधा यत्नात् तप्तं तप्तं च कृत् शः ॥
मौक्तिकानि प्रवालानि तथा र न्यशेषतः ।
म्रियन्ते विविधवर्णानि म्रियन्ते नात्र संशयः ॥

Second process

Any gem may be incinerated, if it is heated and immersed, for seven times, into the juice of each of the following —kanya, tanduliya, and human milk.

तृतीयोविधिः ।

वज्रवत् सर्वर नि शोधयेन् मारयेत् तथा ।

Third process.

The rest of the gems may be purified and incinerated in the same way as diamond.

सदोषमणयः परिहर्त्तव्याः ।

(१)

दोषोपसृष्टं मणिमप्रबोधात् बिभर्त्ति यः कश्चन कश्चिदेकम् ।
तं बन्धुदुःखञ्च सबन्धवित्तनाशादयो दोषगणा भजन्ते ॥

Desirability of avoiding defective gems

(1)

One who uses a defective gem is subjected to such calamities as loss of friends and wealth, imprisonment, etc

(२)

चण्डाल एकोऽपि यथाभिजातान् समेत्य दूरादपहन्ति यत्नात् ।
तथा मणीन् भूरिगुणोपपन्नान् शक्तोऽपि विद्रावयितुं विजातः ॥

(2)

Exactly as a man of noble birth is ruined by coming in contact with a man of low birth and vulgar taste, the good effects produced by a genuine gem are nullified by the contact of bad gems

सर्वरत्नानां सामान्यगुणाः ।

मुक्ताविद्रुमवज्रेन्द्रवैदूर्यस्फटिकादिकम् ।
मणिरत्नं सरं शीतं कषायं दु लेखनम् ।
चक्षुष्यं धारणात् तच्च पापालक्ष्मीविनाशनम् ॥

General Properties of all the gems

They are laxative, cool, astringent, sweet, destroyer of fat, beneficial to eye-sight, and destroyer of vice and misfortune

अथ मरकतम् ।

मरकतं च तार्क्ष्योत्थं गारुड़ं गरुड़ाङ्कितम् ।*
रौहिणेयं सौपर्णं च गरुड़ोद्गीर्णकं तथा ॥
पाचि च बुधरत्नं च तार्क्ष्यं गारुत्मतं तथा ।
अश्मगर्भं हरिन्मणिः सुलभं तन्न भूतले ॥

कतस्य लक्षणम् ।

हरिद्वर्णं गुरु स्निग्धं स्फुरद्रश्मिचयं शुभम् ।
मसृणं भासुरं तार्क्ष्यं गाढ़ं सप्तगुणं मतम् ॥

MARAKATA (EMERALD)

The following seven are the features of a good emerald .—

(1) green colour, (2) heaviness, (3) softness, (4) radiating rays, (5) smoothness, (6) brightness, and (7) density.

अशस्तमरकतस्य लक्षणम् ।

कपिलं कर्कशं नील पाण्डु कृष्णं सलाघवम् ।
चिपिटं विकटं कृष्णं रुक्षं तार्क्ष्यं न शस्यते ॥

---

* तार्क्ष्यमिति पुरा महर्षिकश्यपप्रमुखमुनिभिरध्युषितं कश्यपीय-ह्रदसन्निहितमधुना तार्किनामधेयं यवनाधिष्ठानम् ।

Characteristics of bad emerald.

A bad emerald is (1) tawny, (2) coarse, (3) blue, (4) pale-black (5) light, (6) flat-shaped (7) ugly, (8) black, and (9) rough

मरकतस्य गुणाः ।

(१)

ज्वरच्छर्दिविषश्वाससन्निपाताग्निमान्द्यनुत् ।
दुर्नामपाण्डुशोफघ्नं तार्क्ष्यमोजोविवर्द्धनम् ॥

Properties of emerald

(1)

Emerald, duly incinerated, can cure fever, nausea, poison, asthma, abnormal excess of the three doshas, loss of the power of digestion, piles, anemia, and swelling of the body. It increases vitality.

(२)

तस्मिन् मरकतस्थाने यत्किञ्चिदुपज ते ।
तत्सर्वं विषरोगाणां प्रशमाय प्रकीर्त्त्यते ॥
सर्वमन्त्रौषधिगणैर्यन्न शक्यं चिवि सितुम् ।
महाहिदंष्ट्राप्रभवं विषं तत् तेन शाम्यति ॥

(2)

Everything growing in a mine of emerald can counteract the evil effects of poison. Poison of a highly venomous snake, incapable of being cured by

all sorts of incantations and herbal drugs, can be done away with by emerald (duly incinerated).

महागुणं तम् ।

अत्यन्तं हरिद्वर्णं कोमलमर्चिर्विभेदजटिलं च ।
काञ्चनचूर्णेनान्तः पूर्णमिव लक्ष्यते यच्च ॥
युक्तं संस्थानगुणैः समरागं गौरवे न हीनम् ।
सवितुः करसंस्पर्शात् च्छुरयति सर्वां दीप्त्या ॥
हित्वा च हरिद्भावं यस्यान्तर्विनिहिता भवेद् दीप्तिः ।*
अचिरप्रभाप्रभाहतनवशाद्वलसन्निभा भाति ॥
यच्च मनसः प्रसादं विदधाति निरीक्षितमतिमात्रम् ।
तन्मरकतं महागुणमिति रत्नविदां मनोवृत्तिः ॥

Emeralds of superior quality

Emerald of superior quality is very green, soft, and complex in lustre by the penetration of rays from outside. Its interior appears to be full of dust of gold It is characterised by a structural excellence and uniformity of colour It is not light in weight On sun's rays being reflected upon it, the whole room is illuminated Without giving up the greenness of its colour, it keeps within itself its inherent lustre. It resembles in luster the beauty of green grass brightened with the effulgence of lightning Its very sight pleases the mind.

* हरिद्भावमिति हरिद्वर्णस्य अभावम् ।

जात्यमरकत परीक्षा ।

(१)

कृत्रिमत्वं सहजत्वं दृश्यते सूरिभिः सदा ।
घर्षयेत् प्रस्तरे व्यङ्गकाचस्तस्माद् विपद्यते ॥*

Test of Genuine Emerald.

Genuineness of emeralds is tested by experts by rubbing it with a piece of stone If treated in this way, it will break into pieces, if it is glass. This is not the case with a genuine emerald

(२)

लेखयेल्ल् लौहभृङ्गेण चूर्णेनाऽथ विलेपयेत् ।
सहजः कान्तिमाप्नोति कृत्रिमो मलिनायते ॥

(2)

An emerald to be tested is to be scratched with an iron fork and then smeared with lime. Thus treated, a genuine emerald waxes in glaze, whereas an artificial one loses its lustre.

(३)

सन्धिविश्लेषितं रत्नमन्यमरकतं भवेत् ।
श्रेयसे नैनं तद् धार्यं क्रेतव्यं वा कथञ्चन ॥

---

* व्यङ्गः विकृताङ्गः गृहीतमरकताकार इत्यर्थः ।

(3)

The emerald which is broken by another emerald should not be worn or bought

(४)

क्षौमेण वाससा घृष्टा दीप्तिं त्यजति पुत्तिका ।*
दीप्तिर्मरकतस्य हि घृष्ट्या क्षौमेण वर्द्धते ॥

(4)

Puttika (peridote) loses its lustre by being rubbed with a piece of silken cloth, whereas genuine emerald gains in lustre, if treated in the same way

(५)

समायतनवारिणो भारेण सह तोलतः ।
जात्यहरिणमणेर्भारो निर्णेतव्यो मणीषिभिः ॥
तद्भारतुलितेनैव घवात् चो मन्यते ॥
नीरपूर्णघटे क्षिप्तं वस्तु यत्प्रसारितं हि यत् ।
वारि तद्वस्तुना तुल्यमायतने जगुर्बुधाः ॥

(5)

The weight of a genuine emerald is to be ascertained as compared with that of water of the same dimension. The figure, thus obtained, is to be compared with that representing the weight of a piece of stone (to be tested), in relation to the weight

---

* पुत्रिकेति नामान्तरम् ।

of water of the same dimension If the second figure is much lower than the first, the stone tested is to be considered glass or something other than an emerald The water displaced by an article immersed into a pot full of water is regarded to be of the same dimension as the article itself *

(६)

कस्यचिदनेकरूपैर्मरकतमनुगच्छतोऽपि गुणवर्णैः ।
भल्लातस्य निर्णेतुर्वैशद्यमुपैति वर्णस्य ॥

(6)

Some bhallata (a stone which possesses the colour and some other features of emerald) may appear to resemble a real emerald in colour and other features The difference between such a stone and emerald can be known by a greater clearness of colour in the latter

अथ माणिक्यम् ।

माणिक्यं शोणरत्नं च तरुणं लोहितं तथा ।
शृङ्गारो रविरत्नं च रङ्गमणिश्च रागयुक् ॥

तस्य भेदाः ।

माणिक्यं पद्मरागाख्यं द्वितीयं कुरुविन्दजम् ।
सौगन्धिकं तृतीयं स्यात् चतुर्थं नीलगन्धि च ॥

* This is a clear reference to the ancient Indians having a knowledge of specific gravity.

कुशेशयदलच्छायं स्वच्छं स्निग्धं महाद्युति ।
वृत्तायतं समं गात्रं श्रेष्ठं तत् पद्मरागकम् ॥*
विज्ञेयं कुरुविन्दजमतिरक्तं सुशोभनम् ।
सुगन्धिकात् समुत्पन्नं सौगन्धिकं हि पीतभम् ॥
नीलगङ्गाम्बुसंभूतं नीलगर्भारुणच्छवि ।
मांसखण्डनिभं रूपैः कथ्यते नीलगन्धि तत् ॥
पद्मरागो भवेद्विप्रो बाहुजः कुरुविन्दजम् ।
सौगन्धिको भवेद् वैश्यो नीलगन्धि च शूद्रकः ॥

MANIKYA (RUBY).†

Its variety.

Manikya is of four kinds, viz. (1) padma-raga, (2) kuruvindaja, (3) saugandhika, and (4) nilagandhi

The best of the former is lotus-coloured (i e. white red), transparent, gladening to the eyes, highly bright, round-shaped, smooth, and heavy

Kuruvindaja, which grows from a stone named Kuruvindam (corundum), is highly red and beautiful.

Saugandhika, which grows out of sugandhika (spinel), is yellowish red

Nila-gandhi is generally obtained from the bed of the river, Nila-ganga ‡ It is red in colour with a bluish lustre emerging from inside.

* गात्रमिति स्थूलम् ।

† "Ruby" is evidently a contraction of the Sanskrit "rabi-ratna" (i e the gem favourite to Ravi or the Sun)

‡ One of the tributaries of the river, Ganges, falling into it near Hardwar

This classification of the rubies is in order of their excellence

शस्तमाणिक्यस्य लक्षणम् ।

गुरुत्वं स्निग्धता चैव वैमल तिरक्तता ।
स्वच्छता गात्रसाम्यं च दीप्तिश्च वृत्तरूपता ।
सर्वमेतद्विजानीयाच्छ माणिक्यलक्षणम् ॥

Characteristics of good rubies

These are —heaviness, softness, freedom from stains, excess of redness, transparency, smoothness and uniformity of structure, brilliance, and roundness of shape

दुष्टमाणिक्यस्य लक्षणम् ।

(१)

रन्ध्रकार्कश्यमालिन्यरौक्ष्यावैशद्यसंयुतम् ।
चिपिटं लघु वक्रं च माणिक्यं दुष्ट धा ॥

Defects of rubies

(1)

They are as follows —holes, ugliness, absence of lustre, roughness, absence of transparency, flatness, lightness, and deformity of size.

(२)

छायाद्वितयसम्बन्धात् द्विच्छायं बन्धुनाशनम् ।
द्विरूपं द्विपदं तेन माणिक्येन पराभवः ॥*
सम्भेदो भिन्नमित्युक्तं शस्त्राघातविधायकम् ।
कर्करं कर्करायुक्तं पशुबन्धुविनाशकृत् ॥
दुग्धेनेव समालिप्तं पुटके यस्तु सम्भवेत् ।
अशोभनं समुद्दिष्टं माणिक्यं बहुदुःखकृत् ॥
मधुबिन्दुसमच्छायं कोकिलं परिकीर्त्तितम् ।
आयुर्लक्ष्मीं यशो हन्ति सदार्पं तन् न धारयेत् ॥
रागहीनं जलं प्रोक्तं धनधान्यापवादकृत् ।
धूम्रं धूमसमाकारं वैदुग्धतं भयमावहेत् ॥

(2)

A ruby with two different kinds of lustre in two different parts of its surface is a destroyer of friends to its wearer A ruby with a mark resembling crow's foot gives rise to defeat A crack in a ruby worn causes infliction of injuries by weapons A ruby with a piece of pebble within it causes the destruction of cattle and friends A ruby which appears to be coated with milk in a cavity in its body causes much distress. A ruby having the lustre of a drop of honey causes the loss of longevity, fortune, and fame

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* द्विपदं काकपादमित्यर्थः ।

A ruby without lustre causes the loss of riches. A ruby with the colour of smoke threatens an accident by lightning

माणिक्यस्य परीक्षा ।

अप्रणश्यति सन्देहे शिलायां परिघर्षयेत् ।
घृष्टो योऽत्यन्तशोभावान् परिमाणं न मुञ्चति ।
स ज्ञेयः शुद्धजातिस्तु ज्ञेयाश्चान्ये विजातयः ॥

Test of Ruby.

A genuine ruby does not undergo any diminution in lustre, or in weight, even if rubbed with a hard stone This is not the case with an artificial ruby.

श्रेष्ठपद्मरागस्य लक्षणम् ।

(१)

भानोश्च भासामनुवेधयोगमासाद्य रश्मिप्रकरेण दूरम् ।
पार्श्वानि सर्व्वान्यनुरञ्जयन्ति गुणोपपन्नाः टिक-प्रसूताः ॥

Characteristics of excellent Rubies.

(1)

It is a ruby of an excellent quality which endows its surroundings with brilliance when the sun's rays are reflected upon it Such rubies grow from quartz.

(२)

वालार्ककरसंस्पर्शाद् यः शि   लोहितां वमेत् ।
रञ्जयेदाश्रयं वापि स महागुणउच्यते ॥

(2)

It is a ruby of superior worth which, at the touch of the morning sun, vomits, as it were, red flames, or dyes its surroundings with a red lustre

(३)

दुग्धे शतगुणे क्षिप्तो रञ्जयेत् यः समन्   : ।
वमेच्छिखां लोहितां   प   : स   : ॥

(3)

It is an excellent ruby which reddens even a hundred times its weight of milk, or vomits red flames.

(४)

यो मणिर्दृश्यते दूराज्ज्वलदग्नि   च्छविः ।
वंश   न्तिः स विज्ञेयः   स   त्ति   कः ॥

(4)

The gem which appears from a distance to be a blazing fire is called vansha-kanti. It is the giver of all wealth.

(५)

अन्धकारे महाघोरे यो न्यस्तः सन् महामणिः ।
शयति सूर्य्याभः स श्रेष्ठः पद्मरागकः ॥

(5)

The best ruby, if kept in dense darkness, illuminates the surroundings with its rays.

(६)

कोषे तु यो न्यस्तो विकाशयति तत्क्षणात् ।
पद्मरागवरोह्येष देवानामपि दुर्लभः ॥

(6)

It is a ruby which is very rare even to the gods which, if put within a lotus, makes the latter put forth its blossoms immediately.

माणिक्यस्य परिमानम् ।

(१)

गु मागास्तु दशसप्तत्रिगुञ्जकान् ।
पद्मरागस्तुलयति यथापूर्व्वं महागुणः ॥

Weight of rubies

(1)

A ruby of the shape of a gunja should be 10, 7, or 3 gunjas in weight The first is better than the second, and the second is better than the third

(२)

क्रोष्टुकोलफलाकारो द्वादशाष्टाब्धिगुञ्जकान् ।
पद्मरागस्तुलयति यथापूर्वं महागुणः ॥

(2)

A ruby of the shape of a shrigala-kola (jackal plum) weighs 12, or 8, or 7 gunjas Of these three, the first is more valuable than the second, and the second is more valuable than the third

(३)

बदरीफलतुल्यो यः स्वरदिग्वसुमाषकः ।
तथा धात्रीफलस्त्रिंशद्विंशतिद्व्यष्टमाषकः ॥

(3)

The ruby which is of the size of a sweet plum fruit should weigh 12, or 10, or 8 mashas The one which is of the shape of an amalaki fruit should weigh 30, or 20, or 16 mashas

(४)

बिम्बीफलसमा र: षड्वसुदशतोलकः ।
अतःपरं प्रमाणेन मानेन न च लभ्यते ॥
यदि लभ्येत पुण्येन तदा सिद्धिमवाप्नुयात् ॥

(4)

A ruby which is of the shape of a bimbi fruit should weigh 6, 8, or 10 tolas A ruby of a greater weight and dimension is not generally available

माणिक्यस्य गुणाः।

माणिक्यं दीपनं वृष्यं कफवातक्षयार्त्तिनुत्।
भूतवेतालपा कर्मजव्याधिनाशनम्॥

Properties of Ruby

A ruby (duly purified and incinerated) is an increaser of digestive power It is nutritious and destroyer of kapha, vayu, and waste It also does away with the evil influence exerted by ghosts and other evil spirits

अथ मुक्ता।

मौक्तिकं मुक्तिका मुक्ता लक्ष्मीर्मुक्ताफलं च तत्।
विन्दुफलं च भौतिकं तारा च जौवरत्नकम्।
अन्तःसारः शशिप्रिया चन्द्ररत्नं तदेव हि॥

अस्या गुणाः।

(१)

मौक्तिकं शीतलं लघु चक्षुष्यं बलपुष्टिदम्।
कषायं तदेव स्वादु स्त्रीकान्तिरतिवर्द्धिनी॥
कफपित्तक्षयध्वंसि कासश्वासाग्निमान्द्यनुत्।
कान्तिदं वृष्यमायुष्यं भेदि दाहविषप्रणुत्॥
वारिधिगर्भसंजातं मौक्तिकं खलु वीर्यदम्।
दीपि च पक्तिरो णां ना कं यते हि तत्॥

14

Mukta (Pearl).

Properties of Mukta

Pearl is cool, beneficial to eye-sight, giver of strength and nutrition It is astringent, sweet, and increaser of beauty and affection in women It purifies an excess of vayu and pittam, and is efficacious in cough, asthma, and loss of the power of digestion. It increases beauty, vitality, and longevity. It is laxative and efficacious in inflammation and poison.

Pearls growing in the sea (viz. oyster-pearls, conch-pearls, and fish-pearls) are increaser of the power of digestion and pacifier of all the diseases affecting the digestive organs

भेदाः ।

द्विपेन्द्रभेकेन्द्रवराहशङ्खमत्स्याहिशुक्त्युद्भव
वेणुजानि ।
मुक्ताफलानि प्रथितानि लोके तेषां तु शुक्त्युद्भवमेव
भूरि ॥

Varieties of Pearls.

Pearls grow in the following —elephant, frog, boar, conch, fish, oyster, and bamboo

(क) गजमुक्ता ।

ऐरावतकुलजानां पुष्यश्रवणेन्दुसूर्य्यदिवसेषु ।
ये चोत्तरायणभवा ग्रहणेऽर्केन्द्वोश्च भद्रभाः ॥

तेषां किल जायन्ते मुक्ताः कुम्भेषु सरदकोषेषु ।
बहवो बृहत् ाणा बहुसंस्थानाः प्रभायुक्ताः ॥
नैषामर्घः कार्य्यो न च वेधोऽस्तीव ते प्रभायुक्ता ।
सुतविजयारोग्यकरा महापवित्रा धृता राज्ञाम् ॥

(a) *Elephant-Pearl*

Elephants of noble origin are those which are descendants of Airavata (owned by kings of Swarga in ancient times), and are born on a Sunday or Monday with the moon appearing to be in the fixed star of Pushya (in the sign of cancer) or Shravana (in the sign of capricorn), at that part of the year which begins after the Winter Solstice and ends with the Summer Solstice, and at a time of the eclipse of the sun or the moon In the frontal globe on the fore-head or in the place of origin of the tusks of such an elephant grow several pearls of big size and varying structure They are very bright They should not be subjected to valuation, neither are they to be perforated. They are givers of sons, victory, and immunity from diseases They should be worn by kings.

(ख) सर्पमणिः ।

फणिजं मौक्तिकं रम्यं नीलच्छायं महाद्युतिः ।
शृगालकोलधातृकागुञ्जाफलप्रमाणकम् ॥

शस्तेऽवनीप्रदेशे रजतमये भाजने स्थिते च यदि।
वर्षति देवोऽकस्मात् तज्ज्ञेयं नागसम्भूतम्॥

(b) *Snake-pearl*

A snake pearl is beautiful, blue-lustred, and highly brilliant. It may be of three different sizes, viz, of the size of (1) jackal-plum, (2) amalaki fruit, and (3) gunja seed.

The test of genuineness of a snake-pearl is as follows —

Keep it in a silver pot on a clean piece of open soil. If it is a genuine snake-pearl, it will cause immediately a shower of rain falling from the sky all on a sudden, otherwise, there will be no such rainfall

(ग) मीनमुक्ता।

(१)

गुञ्जाफलसमस्थौल्यं मौक्तिकं तिमिजं लघु।
पाटलापुष्पसंकाशमल्पकान्ति सुवर्तुलम्॥

(c) *Fish-Pearl.*

(1)

A fish pearl is as big as a gunja fruit It grows in a kind of whale living in deep oceans. It is light in weight, and has the colour of a patala flower. It is not so bright and is very globular.

(२)

तिमिजं मीननेत्राभं पूतं बहुगुणं बृहत् ।
जायते तत् पयोनिधेर्मध्यचराननेषु वै ॥

(2)

A fish pearl has the appearance of the eyes of a fish It is sacred, endowed with several properties, and big in size It grows in the mouth of whales growing in mid-ocean.

(घ) वराहमुक्ता ।

दंष्ट्रामूले वराहाणां शशिकान्तिनिभं हि यत् ।
जायते मौक्तिकं तद्धि बहुगुणं न संशयः ॥

(d) *Hog-Pearl*

Pearls sometimes grow at the root of the teeth of some hogs These pearls are as bright as the moon's rays. They possess several merits

(ङ) वेणुमुक्ता ।

वंशजं शशिसंनिभं हरिच्छ्वेतं हि तन् मतम् ।
रोचना कोम लघ्वी वंशजं गौरवाद् दृढम् ॥

(e) *Bamboo-Pearl.*

A pearl growing inside a bamboo plant is as bright as the moon's rays. It is greenish white in colour. (It is to be distinguished from vansa-

...chana, a sugar-like substance, sometimes found inside the reeds of a bamboo plant). Vansa-lochana is soft and light, whereas a bamboo-pearl is strong and heavy

(च) शङ्खमुक्ता ।

शङ्खजं शशिसंनिभं वृत्तं भ्राजिष्णु सुन्दरम् ।
बृहत्कोलप्रमाणं तत् कपोताण्डसमं क्वचित् ॥

(f) *Conch-Pearl*

A pearl growing in a conch-shell is as white as the moon It is globular, bright, and beautiful. It is as big as a plum fruit, and sometimes, so big as the egg of a pigeon

(छ) दर्दुरमुक्ता ।

भेकशीर्षे च जायन्ते मणयो ये क्वचित् क्वचित् ।
भौजंगममणेस्तुल्यास्ते विज्ञेया बुधोत्तमैः ॥

(g) *Frog-Pearl.*

The pearls which sometimes grow in the heads of frogs are like snake-pearls

(ज) शुक्तिमुक्ता ।

स्वात्यां स्थिते रवौ मेघैर्ये मुक्ता जलविन्दवः ।
शीर्णाः शुक्तिषु जायन्ते ते मुक्ता निर्मलत्विषः ॥

सर्वेषु मौक्तिकेषु हि हीनं स्याच्च् शङ्खशुक्तिजम् ।
मौक्तिकं जलधौ जातं वीर्यदं पक्तिरोगहा ॥

(h) *Oyster-Pearl*

Rain drops, falling from the clouds at the time when the sun appears to be in the fixed star of swati (in the sign of Libra), if drunk by oysters, develop in course of time into bright pearls growing inside their shells

Of all sorts of pearls, those which grow in oysters and conch-shells are inferior to the rest

The pearls which grow in the ocean (*viz* those growing in whales, conch-shells, and oyster-shells) are strengthening and efficacious in diseases relating to the digestive organs

सर्वमौक्ति वर्णभेदः ।

ब्राह्मणस्तु सितः स्वच्छो गुरुः शुक्लः न्वितः ।
आरक्तः क्षत्रियः स्थूल थारुणोविभान्वितः ॥
वैश्य आपीतवर्णोपि स्निग्धः श्वेतः प्रभ न्वितः ।
शूद्रः शुक्लवपुः सूक्ष्मस्तथा स्थूलोऽसितद्युतिः ॥

Classification of all the pearls according to colour.

Pearls of the best type are clear, white, heavy, and bright Those of the second class are thick, with tawny colour and brightness. Those of the third class are slightly yellow, appearing to be smeared

with oil, white, and bright. Those of the fourth class are white, small, thick, and have a black lustre

शुभमौक्तिकस्य लक्षणम् ।

ह्लादि श्वेतं लघु स्निग्धं रश्मिवन् निर्मलं तु ।*
ख्यातं तोयप्रभं वृत्तं मौक्तिकं नवधा शुभम् ॥

Characteristics of goodpearls.

A goodpearl is agreeable to eye-sight, white, light, appearing to be smeared with oil, bright as sun's rays, big in size, praised by lookers-on, clear as water, and globular

अपकृष्टमौक्ति णम् ।

रुक्षांगं नोज्ज्वलं श्यावं ताम्राभं लवणोपमम् ।
अर्द्ध शुभ्रं च विकटं ग्रन्थिलं मौक्ति कं त्यजेत् ॥

Characteristics of bad pearls.

Pearls of the following description are to be rejected —coarse, devoid of brightness, tawny-coloured, having the colour of copper, resembling salt in appearance, half-white, ugly, and full of knots

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* स्नेहेनेव विलिप्तं यत् तत् स्निग्धमिति गद्यते ।

मौक्ति वेधः ।

शङ्खतिमिवेणुवारणवराहभुजगभेकजान्यवेध्यानि।
अमितगुणत्वाच्चैषामर्घः शास्त्रे न निर्दिष्टः ॥

Perforation of Pearls

Pearls, other than those which grow in oysters, should not be perforated Neither should they be set a value to, on account of their scarcity

अथ नीलम् ।

तृणग्राही तथा नीलं नीलाश्म सौरिरत्नकम् ।
कलिङ्गे सिंहले जातं नीलोपलं शनिप्रियम् ॥
नीलमणिर्द्विधा प्रोक्तं ज लेन्द्रनीलके ।
शक्रनीलं तयोर्वरं कथ्यते रत्नकोविदैः ॥
श्वैत्यगर्भितनी भं तज्जलनीलकम् लघु ।
कार्ष्णगर्भितनीलाभं सभारं श नीलकम् ॥
रक्तगर्भाम्बुनीलं हि र गन्धि विकथ्यते ।
रक्तमुखी तदेव स्यात् जलनीलेषु तद्व वरम् ॥

NILA (SAPPHIRE)

This stone, in ancient times, was procured from Kalinga (modern Orissa including the western part of Bengal) and Ceylone

Nila is of two kinds, *viz.* Jala-nila and Indra-nila Of these, the latter is better than the former. The sapphire which is comparatively light and emits a white lustre from inside is Jala-nila, whereas Indra-nila is comparatively heavy, and emits a black lustre from inside

The Jala-nila which contains a red lustre inside it is called Racta-gandhi or Racta-mukhi nila. It is the best of the Jala-nilas

श्रेष्ठेन्द्रनीलस्य लक्षणम् ।

एकच्छायं गुरु स्निग्धं स्वच्छं पिण्डितविग्रहम् ।
मृदु मध्ये लसज्ज्योतिः सप्तगुणेन्द्रनीलकम् ॥

Characteristics of a good Indra-nila

A good indra-nila is of uniform lustre, heavy, appearing to be smeared with an oily substance, transparent, globular, soft, with a play of brilliance inside it.

जलनीलस्य भेदाः ।

कोमलं विहितं रुक्षं निर्भारं रक्तगन्धि च ।*
चिपिटाकृति† सूक्ष्मं च जलनीलं हि सप्तधा ॥

* कोमलमिति प ँम् । विहितमित्यर्द्धभागेन सम्पूर्णवर्णमर्द्धेन कोमलम् ।

† चिपिटाभमिति पाठान्तरम् द्रष्टव्यम् ।

Varieties of Jala-nila

Jala-nila is of seven kinds, *viz* (1) that which has got a blending of five different kinds of colour, (2) that which has got a blending of five colours in the one half and only one colour in the other half, (3) that which does not appear to have an oily surface, (4) that which is light, (5) that which has got a play of red lustre inside it, (6) that which is flat-shaped (or, according to a different reading, has the glaze of a chipita or boiled rice baked and hammered into a flat-shape), and (7 that which is small-sized.

ताम्राभनीलमणिः ।

इन्द्रनीलो यदा कश्चित् विभर्त्याता र्णताम् ।
त्यजेन् न तत् तथा ौ करवीरोत् भौ ॥

Copper-coloured sapphire.

A sapphire which is copper-coloured should not be discarded. That is also the case with the two minor stones, *viz* karabira and utpala (opal), even if they are copper-coloured

इन्द्रधनुर्नीलम् ।

यस्य मध्यगता भाति नीलस्येन्द्रायुधप्रभा ।
तदिन्द्रनीलमित्याहुर्महार्घ्यं भुवि दुर्लभम् ॥

Rain-bow sapphire

The sapphire which has got a play of rain-bow, inside it, is very precious and rare in the earth

महानीलम्।

यस्तु वर्णस्य भूयस्त्वात् क्षीरे शतगुणे स्थितः।
नीलतां तन्नयेत् सर्वं महानीलः स उच्यते॥

Maha-nıla

The sapphıre, whıch, on account of the abundance ıts colour, can ınvest hundred tımes ıts weıght milk wıth a blue colour ıs called Maha-nıla or ›at sapphıre

अथ गोमेदमणिः।

गोमेदं राहुरत्नं च स्वर्भानवस्तमोमणिः।
पि फटिकमेव तत् पीतमणिश्च कथ्यते॥
गोमेदःसमरागत्वाद् गोमेदं रत्नमुच्यते।
गोमेदः प्रियकृद् राहोरीषत् पीतारुणप्रभः॥

Gomedam (zercon)

It is a kind of quartz of a yellowısh red colour omeda (lıterally, cow's fat) is so called sımply ıuse ıt resembles beef's tallow ın colour. This e is of a reddish yellow colour

गोमेदं परीक्षणीयम्।

हिमालये वा सिन्धौ वा गोमेदमणिसम्भवः।
परीक्षा वहितः र्ष्या शाणे वा रत्नकोविदैः॥

Zercon is to be tested.

Zercon is found in the Himalayas and in the Sindhu (river Indus or province of Sind or the sea). The genuineness of this stone is to be tested by means of fire or by a whet-stone.

गोमेदम् ।

सुस्वच्छगोजलच्छायं स्वच्छं स्निग्धं समं गुरु ।
निर्दलं मसृणं दीप्तं गोमेदं शुभमष्टधा ॥

Good zercons.

Zercons of the following description are good —(1) having the colour of cow's urine which is very clear, (2) transparent, (3) appearing to be smeared with oil, (4) level-surfaced; (5 heavy, (6) devoid of layers, (7) smooth, and (8) bright

अशस्तगोमेदम् ।

विच्छायं लघु रुक्षाङ्गं चिपिटं पटलान्वितम् ।
निष्प्रभं पीतकाचाभं गोमेदं न शुभावहम् ॥

Zercon of bad qualities

These are as follows —(1) devoid of secondary colour, (2) light, (3) rough-surfaced, (4) flat-shaped, (5) appearing to have a layer, (6) devoid of brightness, and (7) appearing to resemble glass of yellow colour.

गोमेदस्य छाया: ।

सर्वेषां मणिर   ां ज्ञायते बुधसत्तमैः ।
छाया चतुर्विधा श्वेता रक्ता पीताऽसिता तथा ॥
गोमेदं पीतरक्ताभं प्राधान्येन   श्यते ।
छाया चतुर्विधा तस्मिन् दृश्यते नात्र संशयः ।

Secondary Colours of Gems.

Every gem has any of the following sub-colours (in addition to the predominant one) --(1) white, (2) red, (3) yellow, and (4) black This is also the case with zercons

Zercon is principally of reddish yellow colour, but it must have, in addition, any of the four sub-colours mentioned above

प्रशस्तगोमेदम् ।

गुरुः प्रभा   : सितवर्णरूपः स्निग्धो मृदुर्वाऽथ महापुराणः ।
स्वच्छस्तु गोमेदमणिर्धृतोऽयं करोति लक्ष्मीं धनधान्यवृद्धिम् ॥

Zercon of highly excellent qualities

Such a zercon is heavy, brilliant, white, appearing to be smeared with an oily substance, soft, or very ancient (i e., one which was metamorphosed

on the border of a country named "Kama-bhuti" (Cambodia ?)

It appears to contain inside it a mark resembling a swinging scarf

वैदूर्यस्य भेदः ।

(१)

वैदूर्य्यं त्रिविधं ज्ञेयं विदूरगिरिसम्भवम् ।
कृष्णपीतं तथा नीलरक्तं च श्यामशुभ्रकम् ॥

Varieties of Vaidurya

This gem is of three different kinds, viz (1) yellowish black, (2) reddish blue, and (3) white black

(२)

एकं वेणु शकोमलरु मायूरक त्विषा
जारेक्षणपिङ्गलच्छविजुषा ज्ञेयं त्रिधा छाय ।
यद्गात्रं गुरुतां दधाति नि रां स्निग्धं तु दोषोज्झितम्
वैदूर्य्यं विशदं वदन्ति सुधियः स्वच्छं च तच्छोभनम् ॥

(2)

Vaiduryam is of three different kinds, viz (1) of the colour of green bamboo leaf, (2) of the colour of peacock's neck, and (3) tawny-coloured like a cats' eye.

Of all these Vaiduryas, those which are commendable are heavy, smooth, devoid of the general defects (referred to before), pellucid, and transparent

वैदूर्यस्य लक्षणम् ।

वैदूर्यं श्यामशुभ्राभं समं स्वच्छं गुरु स्फुटम् ।
भ्रमच्छुभ्रोत्तरीयेण गर्भितं शुभमीरितम् ॥

Characteristics of a good Vaiduryam

The Vaidurya, which is blackish-white, smooth-surfaced, transparent, heavy, bright, and appears to contain inside it a mark resembling a swinging scarf, is commendable.

अशस्तवैदूर्यस्य लक्षणम् ।

श्यामं तोयसमच्छायं चिपिटं लघु कर्कशम् ।
रक्तगर्भोत्तरीयं च वैदूर्यं नैव शस्यते ॥

Characteristics of bad Vaiduryam

A Vaidurya of the following description is not commendable —(1) black, (2) water-coloured (3) flat-shaped, (4) light, (5) rough, and (6) containing inside it a mark resembling a swinging scarf of red colour

वैदूर्यस्य परीक्षा ।

घृष्टं यदात्मना च्छं स्वच्छायां निकषाश्मनि ।
स्फुटं प्रदर्शयेदेतद् वैदूर्यं जात्य च्यते ॥

Test of Vaidurya

The Vaidurya which gains in lustre, if rubbed with a touch-stone, is a genuine one.

वैदूर्यस्य गुणाः ।

वैदूर्य्यं रक्तपित्तघ्नं प्रज्ञायुर्बलवर्द्धनम् ।
पित्तप्रधानरोगघ्नं दीपनं मलमोचनम् ॥

Properties of Vaidurya.

Vaidurya cures hemorrhage; increases knowledge, longevity, and strength, cures diseases due to an excess of pittam; excites power of digestion, and is a laxative.

थ वैक्रान्तम् ।

वैक्रान्तं दग्धहीरकं नीचवज्रं च ताम्रकम् ।
पुलकं ताम्ररत्नं च ताम्राश्म विकृतं तथा ॥
अष्टास्त्रश्चाष्टफलकः षट्कोणो मसृणो गुरुः ।
शुद्धमिश्रितवर्णैश्च युक्तो वैक्रान्त उच्यते ॥

VAIKRANTA (GARNET)

Vaikranta has eight or six angles and ei facets It is smooth, heavy, and has all sc of colour, pure or mixed,

वैक्रान्तस्य भेदाः।

(१)

श्वेता रक्तश्च पीतश्च नीलः पारावतच्छविः।
श्यामलः कृष्णवर्णश्च कर्बुरश्चाष्टधा हि सः॥

Varieties of Vaikranta

(1)

Vaikranta is of the following different colours —(1) white, (2) red, (3) yellow, (4) blue, (5) pigeon-coloured, (6) green, (7) black, and (8) mixed

(२)

श्वे गीत था र ो नीलः पा भः।
मयूरक सदृश न्यो मरकत :॥
देहसिद्धिकरं कृष्णं पीते पीतं सिते सि ।
सर्वार्थसिद्धिदं रक्तं तथा मरक ॥
शेषे द्व निष्फले वर्ज्ये वैक्रान्तमिति सप्तधा॥

(2)

Vaikranta is of the following colours —(1) white, (2) yellow, (3) red, (4) blue, (5) pigeon-colour, (6) the colour of a peacock's neck, and (7) the colour of an emerald

The black variety is beneficial to health the yellow one is to be used in the process for manufacturing gold, the white one is to be used in the

process for manufacturing silver (vide the operations of mercury in Vol I) The red variety has an all-round utility The remaining two, viz , the blue and the pigeon-coloured varieties, are abortive, and should, therefore, be avoided.

वैक्रान्तस्य गुणाः ।

(१)

युःप्रदश्च बलवर्णकरोऽति वृष्यः ।
प्रज्ञाप्रदः सकलदोषगदापहारी ॥
दीप्ताग्निकृत् पविसमानगुणस्तरस्वी ।
वैक्रान्तकः ख वपुर्बललोहकारी ॥
रसायनेषु सर्वेषु पूर्वगण्यः प्रतापवान् ।
वज्रस्थाने नियोक्तव्यो वै न्तः सर्वदोषहा ॥

Properties of Vaikranta

(I)

Vaikranta increases longevity, strength, complexion, nutrition, knowledge, and appetite. It removes all the three doshas and the diseases. It has almost the same properties as diamond It makes the body as strong as iron. As a rasayanam, the white one is the best. A vaikranta, devoid of all the defects, may be used in lieu of diamond

(२)

वैक्रान्तो व सदृशो देहलोहकरो मतः।
विषघ्नो रसराजश्च ज्वर छत्नयप्रणुत् ॥

(2)

Vaikranta, like diamond, strengthens the body, nd cures poison, fever, leprosy, and phthisis. It is lso a king of the metallic drugs.

वैका ोत्पत्तिस्थलम्।

विन्ध्य दक्षिणे भागे ह्यु त्तरे वाऽस्ति सर्वतः।
विकृन्तयति लोहानि तेन वै न्तकः स्मृतः।
वज्रलक्षणसंयुक्तो दाहघा ह्ष्णुस्तत् ॥

Mines of Vaikranta

Vaikranta is obtained in several parts of the world, and especially in mines situated on the north and south of the Vindhya Hills

The stone is so named, only because it can cut into pieces all sorts of metals (The root from which the word has been derived, viz. "krit," means to cut)

It has many of the characteristics of diamond, and can stand heating and percussion

वैक्रान्तस्य शोधनम्।

प्रथमोविधिः।

वैक्रान्तकाः स्युर्हि दिनं विशु :
संस्वेदिताः क्षारपटूनि दल ।

अम्लेषु मूत्रेषु कुलत्थरम्भा-
नीरेऽथवा कोद्रववारिपक्वाः ॥

Purification of Vaikranta

First process.

Vaikranta is purified, if it is boiled for one day each with a solution of ksharas and salts dissolved with (1) the amlas (vegetable acids) (2) urines, and (3) decoction of kulattha, respectively

It may also be purified, if boiled with a decoction of kodrava (a kind of grass-paddy).

द्वितीयोविधिः।

कुलत्थक्वाथसंस्विन्नो वैक्रान्तः परिशुध्यति।

Second process.

Vaikranta is purified, if it is boiled for 3 days with decoction of kulattha.

तृतीयोविधिः।

प्रशस्तं दग्धहीरकं ध्मापितं स रतः।
निर्गुण्ड रसे क्षिपेत् प्रक्षाल्य स्वच्छवारिणा।
शुद्धिमायाति तेन तत् तत च्च विमारयेत् ॥

Third process

Vaikranta is purified, if it is heated for seven times, and immersed each time in the juice of nirgundi, and then washed off with clear water

चतुर्थोविधिः ।

१६४ पृष्ठे तृतीयोविधिर्द्रष्टव्यः ।

Fourth process

See Process No III, page 194

वैक्रान्तस्य मारणम् ।

प्रथमोविधिः ।

गन्धकं मर्दयेत् सम्यग् निम्बुद्रवेण खल्वके ।
वैक्रान्तं म्रियते पुटैरष्टाभिस्तेन लेपितम् ॥

Incineration of Vaikranta

First process

Vaikranta is incinerated, if it is heated by putam for eight times, after having been smeared each time with a paste made of sulphur, rubbed well with lime juice.

द्वितीयोविधिः ।

१६४ पृष्ठे तृतीयोविधि द्रष्टव्यः ।

Second process

See Process No III, page 194

तृतीयोविधिः ।

वैक्रान्तेषु च तप्तेषु हयमूत्रं विनिक्षिपेत् ।
पौनःपुन्येन वा कुर्यात् द्रवं दत्वा पुटेदनु ।
अनेनैव प्रकारेण म्रियते दग्धहीरकम् ॥

Third process

Vaikranta is incinerated, if it is heated by putam as many times as necessary, after having been heated each time in the ordinary way and immersed in the urine of horse

थौंविधिः ।

हयमूत्रेण श्म सेच्यं तप्तं त्रिसप्तधा ।
ततश्चोत्तर रुण : पञ्च गोलके क्षिपेत् ॥
रुद्ध्वा मूषापुटे पाच्यमुद्धृत्य गोलके पुनः ।
क्षिप्त्वा रुद्ध्वा पचेदेवं वत् तद्भस्म व्रजेत् ॥

Fourth process.

Vaikranta is to be heated and immersed at once in the urine of horse This process is to be performed for 21 times. The stone is then to be kept inside a lump made of the five different parts (viz root, leaves, bark, flower, and fruit) of an indra-baruni plant The lump is then to be confined within a crucible and heated. The stone is next to be kept again inside a lump made in the same way as stated above, put into a crucible, and heated as before The process of heating in crucibles is to be repeated as many times as are found necessary for the incineration of vaikranta.

वज्रस्थाने वैक्रान्तस्य व्यवहारः।

भस्मीभूतं हि वै न्तं वज्रस्थाने नियोजयेत्।
मोक्षमोरटपालाशक्षारगोमूत्रभावितम् ॥*

Use of garnet in place of diamond.

Incinerated garnet is to be subjected to bhavana with cow's urine mixed with a kshara of the following trees —moksha, morata, and palasha.

वैक्रान्तस्य सत्त्वपातनं।

(१)

व कन्दनिशाकल्कफलचूर्णसमन्वितम्।
ततकल्कं टंकणं लाक्षाचूर्णं वैक्रान्तसंभवम् ॥
नवसारस युक्तं मेषशृङ्गीद्रवान्वितम्।
पिण्डितं मूकमूषस्थं ध्मापि च हठा ना ॥
सत्त्वं पतति तत्रैव वैक्रान्त न संशयः।

Extraction of essence of Vaikranta

(1)

Tuber of shurana, haridra, powdered madana fruit, tankana, powdered laksha (lac insects, ashes of vaikanta, navasara—all these are to be rubbed with decoction of mesha-shringi and made into a lump, which is to be dried, confined in a blind (or

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* मोरटं लताकराड़ इति भाषा।

dumb) crucible, and then heated by a very strong fire This will result in the issuing of essence which will be found in the crucible

(२)

सत्त्वपातनयोगेन मर्दितश्च वटीकृतः ।*
मूषास्थो घटिकाध्मातो वै न्तः सत्त्वमुत्सृजेत् ॥

(2)

Essence of Vaikranta can be extracted, if the ashes of vaikranta are mixed with the materials required for extraction of essence of all things (see page 47, Vol II) and heated in a crucible

वक्रान्तस्य प्रयोगः ।

(१)

भस्मत्वं समुपागतो विकृतको हेम्ना मृतेनान्वितः †
पादांशेन कणाज्यवेल्लसहितो गुञ्जामितः सेवितः ।
यक्ष्माणं जठरं च पाण्डुगुदजं श्वासं च कासामयम्
दुष्टां च ग्रहणीमुरःक्षतमुखान् रोगान् जयेद्द हकृत् ॥

Uses of Vaikranta.

(1)

Incinerated vaikranta with one fourth its quantity of incinerated gold, taken in doses of one ract

* २य ` ४७ पृष्ठं द्रष्टव्यम् ।
† वि इति वैक्रान्तम् ।

a day with a little of powered pippali, clarified butter, and powdered biranga, cures phthisis diseases affecting the belly, anemia, fistula, piles, asthma, cough, chronic diarrhoea, cavities or ruptures in the lungs, etc It strengthens the body as well

(२)

सूतभ ाद्ध संयुतं नीलवैक्रान्तभस्मकम् ।
मृताभ्रसत्त्वमुभयोस्तुलितं परिमर्दितम् ॥
क्षौद्राज्यसंयुतं प्रातर्गुञ्जामात्रं निषेवितम् ।
निहन्ति सकलान् रोगान् दुर्जयानन्यभेषजैः ।
त्रिसप्तदिवसे नृणां गङ्गाम्भ इव पातकम् ॥

(2)

Two parts of incinerated vaikranta of blue colour one part of incinerated mercury, and three parts of incinerated mica are to be rubbed together This medicine, taken in doses of one ractı a day early in the morning, with a little of honey and clarified butter, cures, in 21 days only, all the diseases incapable of being cured by other medicines

अथ स्फटिकम् ।

स्फटिकं स्फाटकं स्वच्छं भासुरं स्फाटिकोपलम् ।
धौतशिला सितोपलं शालिपिष्टं शिवप्रियम् ॥

निर्मलोपलकं स्वच्छमणिश्चामरत्नकम् ।
निस्तुषरत्नमेव तत् ज्ञायते रत्नकोविदैः ॥

स्फटि भेदाः ।

अशोक वच्छायं दाड़िमबीजसंनिभम् ।
विन्ध्याटवितटे देशे जायते मन्द न्तिकम् ॥
सिंहले जायते कृष्णमाकरे गन्धनीलके ।
पद्मरागभवे स्थाने त्रिविधं स्फटिकं भवेत् ॥
अत्यन्तं निर्मलं स्वच्छं निस्तुषं स्निग्ध त्रकम् ।
ज्योतिर्ज्वलनमाश्लिष्ट क्तं ज्योतीरसं हि तत् ॥
तदेव लोहिताकारं राजावर्त्त दा तम् ।
आनीलं तत्तु पाषाणं प्रोक्तं राजमयं शुभम् ॥
ब्रह्ममूत्रमयं यत्तु प्रोक्तं ब्र मयं हि तत् ॥

Varieties of Sphatika (*Quartz*)

Quartzes are of several varieties The *manda-kanti* or lack-lustre quartz grows in the forests in the Vindhya hills. They have the colour of green tendrils of asoka tree or of pomegranate seeds. The *black* variety grows in mines of sapphire in Ceylon

In mines of emerald grow quartz of three different variety All of them are very clear, trans parent, and free from layers A glare of ligh emerge from them The general name for all these

sphatikas is "*jyoti-rasa*" Of these three, the red variety is called "*rajavarta*" (see later), the bluish variety is called "*raja-maya*", and that variety which has got marks like a sacred thread upon its surface is called the "*brahma-maya*"

स्फटिकस्य गुणाः ।

स्फटिकः समवीर्यः स्यात् पित्तदाहार्त्तिशोषनुत् ।
तस्याक्षमालिकाजपाद्द धत्ते कोटिगुणं फलम् ॥

Properties of Sphatika

It is neither cold nor warm. It is efficacious in pittam, inflammation, impurities of the blood and wasting diseases To count its beads in religious devotion is productive of much good

स्फटिकनिर्म्मितजलपात्रस्य गुणाः ।

स्फाटिके पेयपात्रे हि रक्षितं विमलं जलम् ।
पवित्रं देहशीतलं पित्तस्य च विनाशनम् ॥

Properties of water kept in a pot made of sphatika.

Pure water, kept in a pot made of sphatika, is cool and pacifier of pittam

अथ चन्द्रसूर्य्यकान्तौ ।

अमृतांशुकरप्रभं हैमाद्रिशिखरोद्भवम् ।
निर्मलं च प्रभायुक्तं स्फटिकं परिकीर्त्तितम् ॥
तपनस्यातपस्पर्शादुद्गिरत्यनलं हि यत् ।
सूर्यकान्तं विजानीयात् स्फटिकं र   म् ॥
अमृतांशुकरस्पर्शात्   वा तोदकम् ।
दुर्लभं तं महारत्नं चन्द्रकान्तं विदुर्बुधाः ॥

THE SUN-STONE AND THE MOON-STONE

The quartzes which grow in the peaks of the Himalayas are very clear and bright like the moon's rays Of these, the variety which emits fire on the sun's rays being reflected upon it, is called the Surya-kanta (or sun's favourite). It is the best of all the gems There is another variety of this quartz, called the Chandra-kanta (or Moon's favourite). This is also a very precious gem, and is very rare On moon's rays being reflected upon it, drops of water of nectar-like potency are shed by it

सूर्यकान्तस्य गुणः ।

रविकान्तो भवेदुष्णो निर्मलश्च रसायनः ।
वातश्लेष्महरो मेध्यः पूजनाद् रवितोषकृत् ॥

Properties of Sun-stone

The Sun-stone is warm, clear, and rasayanam (preventer and curer of senility and diseases). It pacifies an excess of vayu and kapha (phlegm), and increases memory The planet sun (i e. its presiding Deity) is propitiated, if this stone is kept carefully.

चन्द्रकान्तस्य गुणाः ।

चन्द्रकान्तस्तु शिशिरः स्निग्धः पित्तास्रतापनुत् ।
शिवप्रीतिकरः स्वच्छो ग्रहालक्ष्मीवि शनः ॥

Properties of the Moon-stone.

The moon-stone is cool, appearing to be smeared with oil, pacifier of racta-pittam (hemorrhage) and inflammation. It is pleasing to Siva—the Great Deity, and is a remover of the malignant influence of the planets * and misfortune.

चन्द्रकान्तोद्भवोदकस्य गुणाः ।

चन्द्रकान्तोद्भवं वारि पित्तघ्नं विमलं स्मृतम् ।

Properties of Moon-stone water

This water is absolutely pure and curer of excess of pittam

* Properly speaking, the planets do not exert any influence, good or bad, on human destiny What they actually do is to indicate good or bad luck to human beings (by their peculiar configuration)

अथ प्रवालम्।

प्रवालं विद्रुमं ज्ञेयमंगारकमणि था।
अम्भोधिवल्लभं भौमरत्नंचैव लतामणिः।
रक्ताङ्गं रक्तदेहं च जलधिगर्भकोटकम्॥

अस्य भेदाः।

अरुणं शशरक्ताभं कोमलं स्निग्धमेव च।
प्रवालं विप्रजातिः स्यात् सुखवेध्यं मनोरमम्॥
जवाबन्धूकसिन्दूरदाड़िमीकुसुमप्रभम्।
अस्निग्धं कठिनं चैव दुर्वेध्यं चत्रमुच्यते॥
पलाशकुसुमाभासं तथा पाटलसन्निभम्।
वैश्यजातिर्भवेत् स्निग्धं वर्णा मन्दकान्तिमत्॥
रक्तोत्पलदलाकारं कठिनं न चिरद्युति।
विद्रुमं शूद्रजाति द् नैव वेध्यं सुखेन तत्॥

PRAVALAM (CORAL)

Its varieties

The best of the corals is reddish-white in colour, like the blood of a hare It is soft, with a surface appearing to be smeared with oil, beautiful, and is capable of being easily perforated The second class of the corals is as red as red vermillion or the java,

bandhuka, or pomegranate flower. Such a coral is stiff and its surface does not appear to be smeared with oil. It is difficult to be perforated The third class in merit of the corals is yellowish-red like palasha or pātala flower It has a beautiful colour, but very little glaze Its surface does not appear to be smeared with oil. The fourth class of corals, which is the least meritorious, is blackish-red like the petals of a red lotus flower It is hard and its lustre does not last for a long time It is very difficult to be perforated

शस्तप्रवालानां लक्षणानि ।

रक्तता स्निग्धता दार्यं वृत्ताकृतिश्चिरद्युतिः ।
गौल्यं च व्रणराहित्यं प्रवालानां गुणा : ॥

Characteristics of good corals.

These are —(1) redness, (2) appearing to be smeared with oil, (3) capacity for being perforated, (4) globular shape, (5) lastingness of the lustre, (6) thickness, and (7) smoothness of surface

अशस्तप्रवा लक्षणानि ।

पाण्डुरं धूसरं दुष्टं * सव्रणं कण्डरान्वितम् ।
निर्भारं शुल्ववर्णाञ्च प्रवालं नेष्यतेऽष्टधा ॥

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* दुष्टमिति दोषयुक्तम् १६८ पृष्ठं द्रष्टव्यम् ।

Characteristics of bad corals.

Bad corals are pale-white, grey-coloured, small rough-surfaced, full of cavities, light, and copper coloured

विद्रुमस्य कोमलत्वम्।

नायसोल्लिख्यते रत्नं मौक्तिकं विद्रुमं विना॥

Softness of corals.

Of all the gems, only corals and pearls can be scratched upon by iron.

प्रवा गुणाः।

त्नयपि । ं दीपनं पाचनं लघु।
विषभूतादिशमनं विद्रुमं नेत्ररोगनुत्॥

Properties of corals.

Pravala is efficacious in phthisis, hemorrhage, cough, eye-disease, poison, and evil influences exerted by ghosts, etc. It is light and digestive.

अथ कर्केतम्।

ं च क ं मणिश्च कथ्यते।
ं श्रीप्रदं क् स्पर्शजगरना नम्॥

Karketam (chrysoberyl or chrysolite).

Used internally as a drug, or externally as an article of jewellery, it brings to its user all sorts of

Characteristics of bad corals

Bad corals are pale-white, grey-coloured, small, rough-surfaced, full of cavities, light, and copper-coloured

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नायसोल्लिख्यते रत्नं मौक्तिकं विद्रुमं विना॥

Softness of corals.

Of all the gems, only corals and pearls can be scratched upon by iron.

प्रवा गुणाः।

त्तयपि । ं दोपनं पाचनं लघु।
ि भूतादिशमनं विद्रुमं नेत्ररोगनुत्॥

Properties of corals.

Pravala is efficacious in phthisis, hemorrhage, cough, eye-disease, poison, and evil influences exerted by ghosts, etc. It is light and digestive.

अथ कर्केतम्।

ं च क मणिश्च कथ्यते।
क ं श्रीप्रदं यक् स्पर्शजगरना नम्॥

Karketam (chrysoberyl or chrysolite).

Used internally as a drug, or externally as an article of jewellery, it brings to its user all sorts of

fortune and beauty. It is an antidote against infection from taking contaminated food or association with diseased persons.

कर्केतस्य भेदाः।

वर्णेन तद्रुचिरसोममधुप्रकाशमाताम्रपीतदहनो-
ज्ज्वलितं विभाति।
नीलं पुनः खलु सितं परुषं विभिन्नं भेदादिदोष-
हरणेन न तद्विभाति॥

Varieties of karketana

Karketanam is of the following colours —(1) blood-red, (2) moon-white, (3) honey-coloured, (4) having a tinge of the colour of copper, (5) yellow, (6) fire-coloured, (7) blue, and (8) pure white

Of these, the last two, viz. blue and pure white, are coarse and full of cracks. They cannot therefore look bright even after removal of their defects.

तनस्य लक्षणम्।

स्नि धा विशुद्धाः समरागिणश्च
पी र्णा गुरवो विचित्राः।
णव्याधिविवर्जिताश्च
कर्केतना पर : पवित्राः॥

Characteristics of good karketana

Karketanas of the following description are commendable —(1) oily-surfaced, (2) not mixed with foreign matters, (3) of uniform colour (4) having a tinge of yellow, (5) heavy, (6) having a play of more than one colour, and (7) devoid of such defects as crack, etc. (see page 169)

अस्य गुणाः ।

पत्रेण काञ्चन ` तु वेष्टयित्वा
हस्ते गलेऽथ धृतमेतदतिप्रकाशम् ।
रोगप्रणाशनकरं कलिनाशनं च
युष्करं कुलकरं च खप्रदं च ॥
एवंविधं बहुगुणं मणिमावहन्ति
नं लङ्कृतये नरा ये ।
ते पूजिता ब धना बहुबान्धवाश्च
नित्योज्ज्वलाः प्रमुदिता अपि ते भवन्ति ॥

Properties of karketana.

A bright karketana, if put on with a golden foil, causes the cure of diseases, does away with the possibility of troubles and anxieties, and increases longevity, children, and happiness.

Those who put on such a good gem acquire respect from people, riches, many friends, beauty, and good health.

अथ पुष्परागः।

पीताश्म गुरुरत्नं च वाचस्पतिप्रियस्तथा।
पीतरत्नं प्रसूनाभो मञ्जुमणिश्च पीतकम्।
पुष्परागो हरिद्राभं पिङ्गस्फटिकमेव च॥
पुष्परागमणिर्द्विधा लभ्यो ज्ञायते बुधैः।
पद्मरागाकरे कश्चित् कश्चित् तार्क्ष्यो ाकरे॥
ईषत् पीतं च वज्राभं स्वच्छं न्त्या मनोहरम्।
पुष्परागमिति प्रोक्तं चन्द्रसेनमहीभुजा।
पुत्रधनप्रदः पुण्यः पुष्परागमणिर्धृतः॥

PUSHPARAGA (TOPAZ).

Pushpa-raga can be obtained in two different kinds of mines, viz in mines of ruby and in those of emeralds Pushparaga, according to king Chandra Sena, the chemist,* is yellowish, transparent, and bright like a diamond It brings son and wealth to its wearer

रत्नान्तरेभ्यः पुष्परागस्य विभेदः।

आपीतपाण्डुरुचिरः पाषाणः पुष्परागसंज्ञस्तु।
कौरण्टकनामा स्यात् स एव यदि लोहितापीतः॥

* For a brief history of Indian Chemistry, see Chapter III, page 46 of the author's book entitled "Indian Civilization and its Antiquity"—(Price Rs 2 India)

आलोहितस्तु पीतः स्वच्छः काषायकः स एवोक्तः ।
आनीलशुक्लवर्णः स्निग्धः सोमालकः स्वगुणैः ॥
अत्यन्तलोहितो यः स एव खलु पद्मरागसंज्ञः स्यात् ।
अपि चेन्द्रनीलसंज्ञः स एव कथितः सुनीलः सन् ॥

Distinction of pusparaga from the other gems

The stone which is yellowish-pale and bright is called "pusparaga" It is called "kaurantaka", if it is yellowish-red in colour It is called "kashaya", if it is reddish-yellow and transparent. It is "somalaka", if it is bluish white and smooth. The stone which is very red is a ruby, and that which is deep-blue is a sapphire

पुष्परागाणां छायाः ।

छाया चतुर्विधा य सिता पीताऽऽसिताऽसिता ।

Sub-colours of Topazes.

They are (1) white, (2) yellow, (3) pale-white, and (4) black

शस्तपुष्परागस्य लक्षणम् ।

पुष्परागं गुरु स्वच्छं स्निग्धं स्थूलं समं मृदु ।
कर्णिकारप्रसूनाभं मसृणं शुभमष्टधा ॥

Characteristics of good Topaz.

A good topaz is heavy, transparent, appearing to have its surface smeared with an oily substance,

thick, well-shaped, soft, having the colour of a karnikara flower, and smooth

अशस्तपुष्परागस्य लक्षणम् ।

(१)

कृष्णबिन्द्वङ्कितं रुक्षं धवलं मलिनं लघु ।
विच्छायं शर्करागारं पुष्परागं सदोषकम् ॥

(२)

निस्प्रभं कर्कशं रुक्षं पीतं श्यामं नतोन्नतम् ।
कपिशं कपिलं पाण्डु पुष्परागं परित्यजेत् ॥

Characteristics of a bad Topaz.

(1)

A defective topaz has got black spots on its surface, is rough, white, devoid of lustre, light, devoid of a sub-colour, and has sugar-like spots.

(2)

A bad topaz is devoid of lustre ; it is coarse, rough, yellow, black, having an undulating surface, brown or reddish brown, tawny, and pale-white

पुष्परा गुणाः ।

पुष्परागं विषच्छर्दिकफवाताग्निमान्द्यनुत् ।
दाहकुष्ठास्रशमनं दीपनं पाचनं लघु ॥

Properties of pushpa-raga

Pusppa-raga is efficacious in poison, nausea, excess of phlegm and vayu, loss of digestive power, inflammation, leprosy, and hemorrhage It is easy to digest

अथ राजावर्त्तः ।*

(१)

राजावर्त्तोऽल्परक्तोरुनीलिकामिश्रितप्रभः ।
गुरुश्च मसृणः श्रे   दन्यो मध्यमः स्मृतः ॥

RAJAVARTA (QUARTZ AMETHYST—LAPIS LAZULI)

(1)

The best type of this stone (which is a kind of quartz) has a blue colour with an admixture of slight red It is heavy and smooth Rajavartas of different description are inferior to these.

(२)

निर्गारमसितमसृणं नीलं गुरु निर्मलं वहुच्छायम् ।
शिखिकण्ठसमसौम्यं राजावर्त्तं वदन्ति जात्यमणिम् ॥

(2)

A genuine rajavarta is devoid of dirt, devoid of whiteness, smooth, blue, heavy, clear, having various sub colours, and beautiful like the neck of a pea-cock.

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* एष एव स्फटिकभेदः । २३६ पृष्ठं द्रष्टव्यम् ।

राजावर्त्तस्य गुणाः ।

(१)

प्रमेहक्षयदुर्नामपाण्डुश्लेष्मानिलापहः ।
दीपनः पाचनो वृष्यो राजावर्त्तो रसायनः ॥

Properties of Rajavarta

(1)

Rajavarta is efficacious in gonorrhoea, waste, piles, anemia, phlegm, and vayu It increases the power of digestion , is nutritious and curer and preventer of diseases and senile decay.

(२)

राजावर्त्तो गुरुः स्निग्धो शिशिरः पित्तनाशनः ।
सौभाग्यं कुरुते नृणां भूषणेषु प्रयोजितः ॥

(2)

Rajavarta is heavy, smooth, cool, and pacifier of pittam It brings fortune to its wearer

राजावर्त्तस्य शोधनम् ।

प्रथमोविधिः ।

निम्बुद्रवैः सगोमूत्रैः सक्षारैः स्वेदिताः खलु ।
द्वित्रवारेण शुध्यन्ति राजावर्तादिप्रस्तराः ॥

Purification of Rajavarta.

First process

Rajavarta and similar stones are purified, if they are boiled for two or three times with lemon juice mixed with cow's urine and ksharas

द्वितीयोविधिः।

शिरीषकुसुमार्द्रकरसेन भावितोऽथवा।
द्रवेन तेन सुस्विन्नो राजावर्त्तो विशुध्यति॥

Second process.

Rajavarta is purified, if it is subjected to bhavana with the juice of shirisha flower mixed with ginger juice, or if it is boiled with the same liquid.

राजावर्त्तमारणम्।

लुङ्गाम्बुगन्धकोपेतो राजावर्त्तो विचूर्णितः।
पुटं तु सप्तवारेण मृतो भवति निश्चितम्॥

Incineration of Rajavarta

Rajavarta is incinerated, if it is powdered and subjected to heat by putam for seven times, after having been rubbed each time with the juice of matulunga and sulphur

रा   ॑   सत्त्वपातन ।

राजावर्त्तस्य चूर्णं तु कुनटीघृतमिश्रितम् ।
विपचेदायसे पात्रे महिषीक्षीरसंयुतम् ॥
सौभाग्यपञ्चगव्येन पिण्डोबद्धं तु कारयेत् ।
ध्मापितं खदिराङ्गारै सत्त्वं मुञ्चति शोभनम् ॥

Extraction of essence of Rajavarta

Powdered rajavarta, mixed with manas-shila, clarified butter, borax, cow's milk, cow's curd, cow's urine, and cow's stool, is to be boiled with a sufficient quantity of buffalo's milk in an iron pot and made into a lump This is to be heated by means of a fire made of khadira wood, resulting in essence of rajavarta coming out of the lump

अनेन क्रमयोगेन गैरिकं विमलं तथा ।
क्रमात् पीतं च रक्तं च सत्त्वं   जति शोभनम् ॥

In this way, essences of yellow and red colour respectively, can be obtained from gairika (red ochre) and vimala (red pyrites).

अथ भीष्मरत्नम् ।

हिमाद्रिप्रतिबद्धं हि शुद्धं भीष्ममणिं खलु ।
बिभर्त्ति श्रद्धया यस्तु स सर्वां भूतिमाप्नुयात् ॥

गुणयुक्तस्य तस्यैव धारणाद्धि यथाविधि ।
विषाणि खलु नश्यन्ति सर्वाण्येव महीतले ॥
बाधन्ते तं न कुञ्जरसर्पादिहिंस्रजन्तवः ।
जलाग्निदस्युवैरिणां भीतिस्तस्य विनश्यति ॥

BHISMA-MANI (A KIND OF ANTI-POISONOUS QUARTZ)

The man who wears a pure bhisma-mani, obtained from the Himalayas, acquires all sorts of objects of desire The wearer of this gem becomes free from the effects of all sorts of poison such ferocious animals as lion, snake, etc can do him no mischief. He has nothing to fear from water, fire, robbers, and enemies

अशस्तभीस्मरत्नम् ।

सैवालवलाहकाभं परुषं पीतप्रभं प्रभाहीनम् ।
मलिनद्युतिं विवर्णं दूरात् परिवर्जयेत् प्राज्ञः ॥

Bhisma-mani, unfit for use

Bhisma-manis of the following description are to be avoided —(1) Those which have the colour of moss, (2) those which have the colour of the balahaka bird (a kind of crane), (3) rough, (4) yellowish, (5) devoid of lustre, (6) black-lustred, and (7) discoloured

नीलमणेर्गुणाः ।*

श्वास सहरं वृष्यं त्रिदोषघ्नं सुदी म् ।
विष रदुर्नामपापघ्नं नीलमीरितम् ॥

Properties of sapphire †

A sapphire, duly incinerated, is a curer of asthma and cough It is nutritious, pacifier of the three doshas, increaser of power of digestion, and destroyer of visama-jwara (malaria, black fever, etc) piles, and vicious tendencies of the mind

अथोपरत्नानि ।

विविधान्युपर नि श्रेयस्तेषां तु सप्तकम् ।
पालङ्कं रुधिरं पूत्ति तार्क्ष्यजं पीलु चोपलम् ॥
सुगन्धिकं च सप्तैतद् दामहीनानि तानि वै ।‡
त् सर्वानि युज्यन्ते रसे रसायने तथा ॥

Uparatnas (Amorphous stones)

There are innumerable minor or amorphous stones The best of all these are the following — (1) palanka (onyx), (2) rudhiram (carnelian) (3)

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* एतदेव २२० पृष्ठे महानीलमित्ये नन्तरं संनिवेश्यम् परन्तु प्रमादात् न तत् साधितम् ।

† This should have been inserted in page 220, after "maha-nila" or great sapphire

‡ दामेति प्रकृत्या खण्डितं सविग्रहं दानेति भाषा ।

puttika (peridote), (4) turkshajam (turquoise—biraja or peroja *), (5) pilu (jade) (6) upalam (opal, chalcedony, and agate), and sugandhikam (spinel).

All of these are amorphous or uncrystallized in shape They are to be incinerated carefully, and applied in mercurial operations as well as in medicines.

अथ पालङ्कम् ।

श्वेतले समन्वितं कृष्णं पाषाणकं हि यत् ।
स्निग्धं हि मसृणं चैव पालङ्कं तत् ीर्त्त्यते ॥
असितमसिताभासं तथा च धूमवर्णकम् ।
पालङ्कं त्रिविधं तत्तु संयुतं श्वेतरेखया ॥
रेखाणां केव ऽथवा बह्वी तत्र प्रदृश्यते ।
धारणात् प्रचुरां श्रियं दत्ते स प्र रः खलु ॥

PALANKA (ONYX).

Palanka is a black stone with a white line drawn upon it Its surface is smooth and appears to be smeared with oil Palanka is of three different kinds, viz black, pale-black, and ash-coloured. Each of them has a white and rope-like line drawn upon it Sometimes there are more than one of such white lines.

* The Persian epithet "peroja" is evidently a contraction of the Sanskrit "biraja", meaning green as "biraja" (durva grass).

अथ रुधिरम् ।

इन्द्रगोपनिभं रक्तं शुकवक्त्रसमं रुचौ ।
मध्येन्दुपाण्डुरं शक्रनीलाभपटलं तथा ॥
गृहीतबहुमूर्त्तिकं विशुद्धवर्णसंयुतम् ।
प्रकटपीलुवन् मानाद् रुधिराख्यं हि रत्नकम् ॥
ऐश्वर्य्यकान्तिभूतिनां दाता तत् अल्पखण्डकम् ।
पक्वमेतद् भवेद् वज्रसदृशसुन्दरच्छवि ॥

RUDHIRAM (CARNELIAN).

Rudhiram is as red as an insect, named indra-gopa (mukmuli), or the mouth of a shuka bird (a kind of parrot) The inner part of this gem is as white as the moon, and the sides have the colour of an indra-nilam It has a pure colour, and it can be given several shapes. It has the weight of a fully grown pilu fruit. This stone, when fully developed, may take the colour of a diamond.

It brings wealth and beauty to its wearer.

अथ पूत्तिका ।

हरिद्वर्णा च पीताभा मरकतानुकारिणी ।
पूत्ति　पुत्रिका सा च कोमला च प्रभान्विता ॥
चौमेण व　　घृ　दीप्तिं त्यजति पूत्तिका ।
दीप्तिर्मरकतस्य हि घृष्ट्या चौमेण व　ते ॥

PUTTIKA (PERIDOTE).

Puttika is yellowish-green, and resembles emerald in colour It is soft and bright. It can be distinguished from emerald by being rubbed with a silken cloth, which reduces its lustre, whereas an emerald becomes brighter, if rubbed in this way.

अथ तार्च्तजम् ।

तार्च्तजं हरितश्यामं भस्माभहरितं तथा ।
तदेवाति यं च मधुरं दीपनं परम् ॥
स्थावरं जंगमं चैव तथा संयोगजं विषम् ।
तत्सर्वं नाशयेत् तथा शूलं भूतादिपीड़नम् ॥

TURKHAJA (TURQUOISE—BIRAJA) *

Turkhaja is of two kinds, viz. greenish-black, and ash-coloured green It is astringent, sweet, and digestive. It removes all sorts of poisons, organic, or inorganic, and is efficacious in colic and troubles due to evil spirits

अथ पी ।

मरकतरत्नो वर्णात् तत् रहितो मणिः ।
पीलुन स विज्ञेयो चीन पप्रियो मतः ॥

* Originally obtained from Turkey The Persian name peroja is a contraction of Sanskrit, "biraja",

ज्ञ बुद्धिमतिस्थैर्य्यदायकोऽसौ मणिर्मतः।
रक्तिकामानतो देयं तद्भस्म शूलजे गदे।

PILU (JADE)

This resembles an emerald in colour but not in brightness The Chinese and the Japanese are specially fond of this stone. It is a giver of wisdom, intelligence, and stability of mind Incinerated pilu, taken in doses of one racti a day, cures colic

अथोपलम्।

लं त्रिविधं ज्ञेयं मर्म्मराश्म वरोपलम्।
तथा रुधिरपालङ्कं सर्वं दामविवर्जितम्॥
रं समवर्णं हि वरोपलं तथैव च।
मर्मरे न प्रभा काऽपि वरोपलं बहुप्रभम्॥
ख्यातं रुधिरपालङ्कं ब वर्णं बहुस्तरम्।
छायाहीनं तदेव विचित्रवर्णचित्रयुक्॥
श्वेतकृष्णविमिश्रि धूम्रं च हरितं सितम्।
मर्मरं दृश्यतेऽथवा वर्णान्तर युतम्॥
पाषाणं सि कर्पूरमणिरुच्यते।
सितं नीलसितं णं रक्तं चेन्द्रधनुर्निभम्।
वर्णेन छाय चैव दृश्यते हि वरोपलम्॥
दामहीनमणीनां च कृष्णं रमुच्यते॥

UPALAM (CHALCEDONY, OPAL, AND AGATE)

It is a general name given to three different kinds of stones, viz. marmarashman (chalcedony), baropala (opal), and rudhira-palanka (agate.)—all of these are amorphous or uncrystallized.

Chalcedony as well as opal has one uniform colour, but the former has no sub-colour or radiance, whereas opal has various sub-colours Agate has several colours and several layers It has no sub-colours, but it has variety of colours and figures impressd upon it Chalcedony or marble stone has only one of the following colours :—White-black, smoky, green, white, etc White variety of chalcedony is called "karpura-mani" or camphor-stone Opal has any of the following colours :—White, bluish-white, black, red, rain-bow-colour Each opal may have one or more of these as sub-colour

The black variety of all the amorphous stones is called "bhramara-mani" or black-bee stone.

अथ सुगन्धिकम् ।

बहुविधं सुगन्धिकं नीलं कृष्णं च लोहितम् ।
[illegible]रयुतं वापि सर्वं पीतप्रभान्वितम् ॥
स्वच्छं [illegible] मा [illegible] रं सुदृशं [illegible] हि तत् ।
माणिक्यनीलर [illegible] करे [illegible] यते हि तत् ॥

SUGANDHIKAM (SPINEL).

Sugandhikam is of various colours, viz. blue, black, red, etc Each of these stones has a yellowish sub-colour. It is transparent, beautiful, and of the shape of a diamond It grows in mines of rubies and emeralds

उपरत्नानां सामान्यगुणाः ।

उपरत्नं वरं यत् तु तत् किञ्चित् सूयते फलम् ।
ईषद्रत्नगुणं तत् तु बिभर्त्तीति विदां मतम् ॥*

General Properties of Amorphous Stones.

The amorphous stones, if devoid of defects, are regarded to have a part of the properties of the gems (see page 195

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* १९५ पृष्ठे र   ं सामान्यगुणाः द्रष्टव्याः ।

पञ्चमोऽध्यायः ।

अथ क्षाराः ।

क्षरति यो मलं शीघ्रं तत्क्षार इति उच्यते ।
क्षारत्रयं स   ख्यातं यावस्वर्जिकटं   म् ॥
टंकनोषरकं चापि यवक्षारश्च स्वर्जि   ।
क्षारचतुष्टयमेतद् परिचितं सदा भुवि ॥
शमोत्थकक्षारौ यवक्षारः   वर्चिका ।
तिलनालोद्भवः क्षारश   ानि क्षारपञ्चकम् ॥
स्वर्जिटंकनभूषरं त्रितयं भौम   च्यते ।
लभ्यन्ते तानि मृन्मध्यात् क्षारपाकवि   करैः ॥
अन्ये तु   ः क्षारा भस   संज्ञि   ः   ।
नवसारोऽपि विज्ञेयः क्षारोत्तमो   ीषिभिः ॥
द्रव्याद्धि पच्यमाना   तज्जायते इति पाकिमः ।
सूतगुणांशसंपर्कात् स एवो   सो मतः ।
पलाशाश्वत्थमोक्षजा धवस्नूहीमयूरजाः ।
चन[illegible]   ोषोद्भवाः ॥

तिलनालसमुत्पन्नो यवशूकोद्भवोऽपि च।
वासापत्रोद्भवश्च यो दुरालभाभवश्च वै॥
व्याघ्रीमूलकचित्रकपुनर्णवार्द्रजाश्च ये।
एते सर्वे प्रयोजिता भेषजेषु यथाविधि॥
अन्येभ्यो बहुवृक्षेभ्यो लतागुल्मतृणादितः।
क्षारो संजायते सम्यग् वक्ष्यमानविधानतः॥
यावस्वर्ज्यूषराश्चैव पाकिमं टं ˙ तथा।
पञ्चैतत् क्षारवर्गेषु विख्यातं क्षितिमण्डले॥

CHAPTER V.

Kshāras (*Alkalis*)

The word "kshāra" is derived from the root "kshar", meaning "to remove". The word is so named, simply because it removes dirt.

The following are the three ksharas :—(1) java-kshara (a potassium carbonate prepared from the ashes of barley-ears), (2) swarji (refined natron), and (3) tankana (borax)

The following are the four ksharas :—(1) swarji (refined natron), (2) ushara (sora—saltapetre—a sodium nitrate), (3) java-kshara, and (4) tankana

The following are the five ksharas :—(1) kshara prepared from palasha wood, (2) that from mokshaka (ghanta pātali) wood, (3) java-kshara, (4) swarji kshara, and (5) the kshara obtained from the tila (sesamum) plant

Of all the ksharas, only swarji, tankana, and ushara are obtained from the earth The rest of the ksharas are extracted from ashes of wood, leaves, etc of trees, plants, creepers, shrubs, and grass

Nava-sara (sal-ammoniac) is also a kshara but it is generally classed with the uparasas, simply because it possesses, to a certain extent, some of the properties of mercury (See page 215, vol, II) It is also called "pakimal" (from root "pach", meaning to putrefy), simply because it is obtained from materials in a state of putrefaction or decomposition

Ksharas obtained from the following are also well-known and widely used --trees or plants of the name of palasha, aswattha, ghanta-patali, dhava, snuhi, apamarga, chanaka-plant, arka, covers of tamarind beans, sesamum plant, ears of barley, basaka, duralabha, kantikari, mulaka (raddish), chitraka, punarnava, and ardraka (ginger).

There are many other trees, plants, shrubs creepers, and grass from which ksharas may be prepared by the method to be described below

Of all the ksharas, the most widely known are the following —(1) java-kshara, (2) swarji (refined natron), (3) usara (nitre *), (4) nava-sara, and (5 tankana (borax)

* The colloquial Indian name for nitre is sora or soraka, which are t corrupted forms of the sanskrit usara and usaraka, respectively, all these words being synonymous Now, usara (or usaraka) is a word wh has been in use in its present sense even from the pre historic times T word is to be found in every sanskrit dictionary, modern or ancient, a even in sushruta.

सामान्येन क्षाराणां गुणाः।

(१)

तीक्ष्णा उष्णाश्च दीपका ल : क्लेद था।
दाहकाश्छेदनाश्चैव क्षाराश्च ज्ञायते बुधैः॥
क्रिमिघ्ना व्रणदारणाः शोधनाः रो । था।
क्षारा मुखकराः सर्वे जानाति रसकौतुकी॥

In this connection, it would be amusing to note how some of the Indinn Allopaths, and their sympathisers, not conversant with sanskrit, which was the language of their fore-fathers and not caring to study the Indian system of medicine, sometimes rush into opinions which are simply ridiculous Let us quote here a few lines from Dr U C Dutt's "Materia Medica of the Hindus" (pp 89—90) —

"Nitre was unknown to the ancient Hindus There is no recognized name for it in sanskrit * * * Some ancient sanskrit formulas for the preparation of mineral acids containing nitre mention this salt under the name of "soraka' This word, however, is not met with in any sanskrit dictionary and is evidently sanskritized from the vernacular "*sora*", *a term of foreign origin* The manufacture of nitre was therefore most probably introduced into India after the adoption of gun-powder as an implement of warfare"

These are the remarks made by an Indian Allopath who wrote a book on the materia medica of the Hindus, without acquiring an adequate knowledge of the subject This indicales a state of things which occurs probably in India alone

The domga that nitre was unknown to the ancient Hindus is not based on facts It will be evident from a passage (quoted by Dr Sir P C Roy in his History of Hindu Chemistry, (Vol I, - pp 184 185, footnote) in a work entitled 'The Travels of John Albert de Mandelso from Persia into the East Indies, London 1669,' that salt petre used to be manufactured in the middle ages, at the latest, in large scales in India whence it was brought into Europe

We propose to prove elsewhere that the use of gun-powder was quite known to the Hindus even at the time of the composition of the oldest portion of the Vedas

गुल्मार्शोग्रहणीदोषशर्कराश्मरीनाशनाः ।
क्षारास्तु पाचनाः सर्वे रक्तपित्तकराः स्मृताः ॥

(२)

शस्त्रानुशस्त्रेभ्य क्षारः प्रधानतमश्छेद्यभेद्यलेख्य करणात् त्रिदोषघ्नत्वाद् विशेषक्रियावचारणाच्च । नानौषधिसमवायत्वात् त्रिदोषघ्नः । स खल्वाग्नेयौषधिगणभूयिष्ठत्वात् कटुक उष्णस्तीक्ष्णः पाचनो विलयनः शोधनो रोपणः शोषणः स्तम्भनो लेखनः क्रिम्यामकफकुष्ठविषमेदसामुपहन्ता पुंस्त्वस्य चातिसेवितः ।

General Properties of the ksharas

(1)

The ksharas are acrid, warm, increasers of appetite, light, moistening, causing inflammation, reducers of phlegm, destroyers of worms, openers of boils, and cleansers and healers of sores

The man who is conversant with the mercurial operations knows that ksharas give rise to hunger in mercury The ksharas are efficacious in gulma, piles, chronic diarrhoea, diabetes, and stone disease. They are digestive and increaser of hemorrhage

(2)

The ksharas are better than surgical instruments in as much as the former, like the latter, can serve

the purpose of incision, tapping, and scratching: and unlike the latter, can remove the three doshas, and have several other utilities as well The ksharas may be remover of the three doshas owing to their being combined with the necessary drugs. They, on account of their being prepared from several herbs with fiery qualities, are pungent, warm, strong, digestive, remover of tissues, etc, purifier of sores, causing granulation in sores, drier up, causing steadiness, reducer of fat, and destroyer of worms, mucus, phlegm, leprosy, poison, and fat They also destroy manly vigour, if taken in excess

भस्मजक्षारनिर्माणस्य सा विधिः।

क्षारवृक्षादिजं काष्ठमथवा पत्रराशिकम्।
शुष्कं सर्वं समाहृत्य वह्नौ ज्वालयेत् सुधीः॥
नीत्वा तद्भस्म मृत्पात्रे थैकप्रमितं खलु।
तत्र क्षिप्त्वा शुद्धं द्रोणमानं विलोड़येत्॥
त तद् धारयेद् रात्रौ प्रातरच्छं जलं नयेत्।
तज्जलं स्रावयेद् यत्नात् सप्तशः पृथुवाससा॥
ीरं क्वाथयेद् वह्नौ यावत् सर्वं विशुष्यति।
ततः पात्रात् समुल्लिख्य क्षारो ग्राह्यः सितप्रभः॥
चूर्णाभः प्रतिसार्यः स्यात् पेयः स्यात् क्वाथवत्स्थितः।
इति क्षारद्वयं धीमान् युक्तकार्येषु योजयेत्॥

*General Process of manufacturing kshara * from ashes*

The wood, leaves, etc of an alkaline tree, plant, etc are to be burnt to ashes One prastha (64 tolas) of these ashes is to be dissolved with 16 times its weight of water which is to be allowed to settle for about 12 hours The clearest part of the solution is next to be filtered for seven times through a piece of thick cloth The water, thus filtered, is next to be heated till the whole thing gets dried up The white-coloured solid product is then to be taken out and kept carefully The solution, just before it is solidified, is a liquid alkali, used for drinking (in special diseases according to directions found in Sushruta). The solid product is an alkali to be used for external application (according to the instructions given in Sushruta) and as an ingredient of medicines.

यवक्षारः ।

अस्य नामानि ।

यवक्षाराभिधः स हि क्षारोत्तमश्च कथ्यते
यवाग्रजो यवापत्यं यवजो यवलासकः ।
पाक्यश्च यवशूकज यावश्च यवनालजः ॥

* The word kshara has undergone a gradual process of transformation as follows :—khara—khari—kali—kili—alkili—alkali

निर्माणविधिः ।

यवशूकोद्भवं भस्म वयित्वा यथाविधिः ।
पूर्वोक्तेन विधानेन क्षारो निर्मीयते जनैः ॥

JAVA-KSHARA.

Its preparation

Ashes of the ears of barley are to be dissolved .h water, which is to be filtered and condensed heating in the afore-said way. The product java-kshara.

अस्य गुणाः ।

यवक्षारः कटुः स्निग्धो लघुष्णासूक्ष्मवह्निकृत् ।
सारको मूत्रकारको वातश्लेष्मप्रशान्तिकृत् ॥
आनाहग्रहणीपाण्डुगुल्मार्शः श्वासशूलक-
प्लीहहृद्रामरोगानां तथा शुक्रस्य नाशनः ॥
ज्ञेयो वह्निसमः क्षारो नियतं यवशूकजः ॥

Its properties

Java-kshara is pungent, soft, light, capable of asily spreading through all parts of the system, ligestive, laxative, discharger of urine, and pacifier of vayu and kapha It is efficacious in the following liseases —intestinal obstruction, chronic diarrhoea, anemia, tumour in the belly, piles, asthma, colic, enlargement of the spleen, heart diseases, and mucus.

It does away with semen and has the properties of fire

पाकिमक्षारस्य गुणाः ।

मेदोघ्नः पाकिमः क्षारो मूत्रवस्तिविशोधनः ।

Properties of pakima (nava-sara).

It reduces fat and purifies the kidneys

भौमक्षाराः ।

(१) ऊषरक्षारः ।*

अस्य निर्माणविधिः ।

गङ्गातीरमृदं वाऽपि लवणाक्तं मृदन्तरम् ।
विलो सलिले शुद्धे गालयेत् पृथुवाससा ॥
धारयेत् सलिलं तच्च रजन्यां मृद्घटे धीः ।
तन्नीरं थयेत् वह्नौ यावत् सर्वं विशुष्यति ॥
ततः प त् समुल्लिख्य क्षारो ह्य सितप्रभः ।
ऊषरं कथ्यते तत्तु शिलाजतूषराभिधम् ॥

KSHARAS OBTAINED FROM THE EARTH.

(1) USARA OR SORA (SALT-PETRE)

Earth, taken out from the banks of the Ganges, or any other salty earth is to be dissolved with pure water and then filtered through a piece of

* द्वितीयखण्डे १०४ पृष्ठे ऊषराख्यं शिला द्रष्टव्यम् ।

(२) स्वर्जिक्षारः ।

अस्य नामानि ।

र्जिक्षारः सुवर्चिका कपोतः सुखवर्च ः ।
र्जिश्च स्वर्जि सुवर्चिश्च सुवर्चकः ॥

निर्माणविधि ।

ेषुचिद् गिरिपृष्ठेषु भूतले वा तदन्तिके ।
श्यते क्षारमृत्पूर्णं भूस्तरं भूरिमानतः ॥
र्जिमृत् * कथ्यते तच्च क्षारेतरपदार्थयुक् ।
ंगृह्य मृत्तिकां तां च मृत्पात्रे स्थापयेत् ततः ॥
तुर्गुणजलेनैव मृत्तिकां तां विलोड़येत् ।
न्नीरं स्रावयेद् यत्नाद् बहुशः पृथुवाससा ॥
ूर्वोक्तप्रकारेण क्वाथयेत् तज्जलं ततः ।
इत्थं संजायते क्षारः स्वर्जिकाह्वो मनोहरः ॥

) SWARJI KSHARA (REFINED NATRON)

In certain hills or in places adjacent to hills, ers of alkaline soil are to be found in abundance s soil is called swarji-mrit (natron). It contains aline mud with foreign matters Some quantity this earth is to be dissolved with four times weight of water. The solution is next to be

* सार्ि टीति भाषा ।

हर्षदो वह्निकृद् कश्चोद्गारशोधक था ।
विबन्धानाहशूलेषु गुल्मामक्रिमिवायुषु ॥
ऊर्द्ध्वानिले विशेषेण शस्तः स्यादूषरो मतः ॥

Its properties.

Ushara is a pacifier of vayu It is moistening, destroyer of strength, increaser of appetite, laxative, soft, easily capable of spreading throughout the whole system, a little increaser of pittam, light, increaser of laugh, disgestive, and purifier of elching winds

It is also efficacious in the following —constipation, intestinal obstruction, colic, gulma, mucus, worms, and, especially, wind moving upwards.

मिश्रक्षारः ।

पूर्वोक्तेन मृदा सार्द्धं क्षारशिल्पी विमिश्रयेत् ।
तृणानां प्रचुरं भस्म कचिद् वा क्षार ये ॥
अनेन निर्मितः क्षारो मिश्राभिधो विकथ्यते ।
स्वर्जिना सहितं चेत्थं तृणभस्म विमिश्र्यते ॥

Mixed kshara.

Manufacturers of kshara sometimes mix with the mud, referred to above, a sufficient quantity of ashes of grass in order to increase the quantity of the kshara to be produced. The distilled solution of mud and ashes is to be heated, and condensed into a mixed kshara, in the manner described above

(२) स्वर्जिक्षारः ।

नामानि ।

र्जिक्षारः सुवर्चिका कपोतः सुखवर्चकः ।
र्जिश्च स्वर्जि चैव सुवर्चिश्च सुवर्चकः ॥

नि विधि ।

कुचिद् गिरिपृष्ठेषु भूतले वा तदन्तिके ।
श्यते क्षारमृत्पूर्णा भूस्तरं भूरिमानतः ॥
र्जिमृत् * कथ्यते तच्च क्षारेतरपदार्थयुक् ।
संगृह्य मृत्तिकां तां च मृत्पात्रे स्थापयेत् ततः ॥
चतुर्गुणजलेनैव मृत्तिकां तां विलोड़येत् ।
तन्नीरं स्रावयेद् यत्नाद् बहुशः पृथुवाससा ॥
पूर्वोक्तप्रकारेण क्वाथयेत् तज्जलं ततः ।
इत्थं संजायते क्षारः स्वर्जिकाह्वो मनोहरः ॥

) SWARJI KSHARA (REFINED NATRON)

In certain hills or in places adjacent to hills, rs of alkaline soil are to be found in abundance. s soil is called swarji-mrit (natron) It contains aline mud with foreign matters. Some quantity this earth is to be dissolved with four times weight of water. The solution is next to be

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* सार टीति भाषा ।

distilled for several times through a piece of thick cloth. The solution, thus distilled, is next to be heated and condensed into solid alkaline substance, called swarji-kashara.

गुणाः ।

स्वर्जिका वह्निसंतुल्या यवक्षारसमा हि ।
कटूष्णातीक्ष्णवीर्या च कफानिलविनाशनी ॥
गुल्माध्मानोदरव्रणक्रिमिषु सा प्रश ते ।
शुक्रश्वासविबन्धार्शोयकृत्प्लीहनिसूदनी ॥

Its properties.

Swarji, like java-kshara, has the properties of fire. It is pungent, warm, and acrid. It pacifies kapha, and vayu, and is efficacious in gulma, flatulence of the stomatch, diseases ef the belly, boils, worms, asthma, intestinal obstruction, enlargement of the spleen and the liver. It impairs semen.

कृत्रिमस्वर्जिक्षारः ।

क्षद्रदुरालभाक्षारो दुरालभाभवोऽपि ।
स्वर्ज्यभावे प्रदातव्यो ` जेषु कवीश्वरैः ॥

Artificial swarji-kshara.

In the absense of swarji-kshara, as manufactured in the way stated above, physicians sometimes use,

as its substitute, a kshara prepared from the ashes of duralabha or small duralabha *

(३) टंकनम् ।

मृत्तिका टंकलाह्वया टंकनमिश्रिता या हि ।
प्राप्यते सा कदाचिद् वै शुष्कजलाशयोदरे ॥
समाहृत्य मृदं तत् तु जलेन सह मेलयेत् ।
स ं टं ं ततः थयेत् तीव्रवह्निना ॥
वद् विशुष्यति सर्वं ततः रं हरेत् ।
सदाम † टंकनाह्वयं सितप्रभं मनोहरम् ॥

(3) TANKANA (BORAX).

A kind of mud containing borax is found in the beds of dried lakes (in upper India and Tibet). This mud is called 'tankal' It is to be dissolved with water, filtered in the usual way, and dried up by heat, leaving crystals of borax deposited at the bottom of the pot

टं नामानि ।

टंकं च टंकनं चैव मालतीतीरसम्भवम् ।
रङ्गदं रसशोधनं पाचनकं रसाधिकम् ॥

* The small variety grows in abundance in barren tracts of land, and especially in the Punjab where it is called "lana" (contraction of "lavana", meaning saltish)

† दाम्ना सह वर्त्तमानं सदाम । दामन् दाना इति भाषा ।

[illegible] रसघ्नं च सौभाग्यं वर्त्तुलं तथा ।
कनकक्षारनाम च मीलनं धातुव भम् ॥
लोहश्लेषणकं चैव टंकनक्षार एव च ।
द्रावणकं रङ्गक्षारः सुभगं णपाचकम् ।
लोहशुद्धिकरं चैव टंगनं च तदुच्यते ॥

टंकनस्य भेदः ।

टंकनं द्विविधं ज्ञेयं पिण्डाख्यं च सदामकम् ।
पिण्डाख्यं मलिनश्वेतं सदाम हि सितप्रभम् ॥

Varieties of tankana.

Tankana is of two kinds, viz pinda (lump) tankana, and crystal tankana. The former is not pure white, whereas the latter is pure white

टंकनस्य गुणाः ।

कटूष्णरुक्षवह्निकृत् कफघ्नो वायुपित्तकृत् ।
कासश्वासरजोरे धस्थावरविषजित् त ।
पिण्डाख्यं टंकनं ज्ञेयं हीनं तत् सितटंकनात् ॥
कटूष्णस्निग्धतीक्ष्णं हि रि भेदि प्रदम् ।
श्लेष्मवातघ्नं च मविषदोषहृत् ॥
पिण्डाख्यात् सितं ष्ठं तरं हि तन्मतम्

Properties of tankana.

Lump tankana is pungent, warm, rough, increaser of digestive power, destroyer of kapha, and increaser of vayu and pittam. It is efficacious in cough, asthma, dismenorrhoea, and inorganic poison. It is inferior to crystal tankana

White or crystal tankana is pungent, warm, soft, acrid, white, laxative, strengthening, digestive, destroyer of kapha and vayu, and efficacious in waste, mucus, and poison

The white borax is purer than the lump borax

टंकनस्य शोधनम् ।

टं वह्नियोगेन स्फुटितं हि विशुध्यति ॥

Purification of tankana.

Tankana is purified, if it is made to burst into white ashes by the application of heat.

क्षाराणां द्वैविध्यम् ।

क्षारास्तु द्विविधा ज्ञेया कठिनास्तरलास्त ।
कठि ाः प्रति र्यश्च प्रयोज्या भेषजादिषु ॥
तरलाः पानयो हि गदेषु बहुषु ।
काञ्चीसुरादधिक्षीरतक्रोष्णवारिभिः सह ।
अथवा वारिणा सार्धं कुलत्थसंभवेन हि ॥
भस्मवारिपरि ुतक्षारजलस्य पाकतः ॥

जायते तरलः क्षारो रक्तोऽच्छतीक्ष्णपिच्छिलः ।
तरलस्य पुनर्पाकात् क्षारोऽयं कठिनायते ॥

Two kinds of ksharas—liquid and solid

Ksharas are of two kinds, viz solid and liquid. Solid ksharas are meant for external application and for use as ingredients of medicines, whereas liquid ones are for drinking in several diseases with kanji, wine curd milk, butter milk, or decoction of kulattha

Liquid kshara is obtained by heating distilled solution of ashes mixed with water up to the time when the solution grows red, clear, acrid, and sticky Further heating of this liquid kshara results in the solidification of the solution into hard kshara

प्रतिसार्यक्षारस्य विषयाः ।

कुष्ठ-किटिमदद्रु-किलासमण्डल-भगन्दरार्बुददुष्ट-व्रणनाडी-चर्मकीलतिलकालकन्यच्छ-व्यङ्गमशकबाह्य-विद्रधिकृमिविषार्शःसूपदिश्यते सप्तसु च मुखरोगेषूपजिह्वाधिजिह्वोपकुशदन्तवैदर्भेषु रोहिणीषु चैवानुशस्त्रप्रणिधानमुक्तम् ।*

Diseases in which solid kshara is to be applied.

Hard kshara may be applied in the following diseases —leprosy in general, kitima (keloid), dadru

* विस्तरार्थं सुश्रुतस्य सूत्रस्थाने एकादशोऽध्यायस्तथा उत्तरतन्त्रे चिकित्सितोऽध्यायो द्रष्टव्यः ।

(ring-worm), kilasa (leucoderma), mandala (lepra), bhagandara (fistula in ano), arbuda (a kind of tumour), dusta-brana (unhealthy ulcers), nali-brana (sinus), charma-kila (condyloma), tila-kalaka (moles), nyachha (chloasma), byanga (black spots on the face), mashaka (warts), bahya-bidradhi (external tumours), krimi (worms), bisha (poison), piles, upajihva (ranula), adhijihva (tumour on the tongue), upakusa (inflammation of the gum), danta-vaidarbha (inflammation of the gum from injury), and three sorts of rohini (diptheria) *

तरलक्षारस्य विषयाः ।

पानीयस्तु गरगुल्मोदराग्निशूलाजीर्णारोचकानाह-शर्कराश्मर्य्यभ्यन्तर-विद्रधि-कृमि-विषार्शः-सु प्रयुज्यते । अहितं तु रक्तपित्तज्वरितपित्तप्रकृति-बाल-वृद्ध-दुर्बल-मदमूर्च्छातिमिरपरीतेभ्यऽन्येभ्यश्चैवंविधेभ्यः ।

Use of liquid Kshara.

The liquid kshara is used in toxin, gulma, udara, indigestion, colic, loss of appetite, intestinal obstruction, diabetes, stone disease, internal tumour, worms, and piles

It is injurious in hemorrhage, fever, biliousness, diseases of children, old men, and weak men,

* Allopathic classification of diseases is so vague and general that it is impossible to find a corresponding allopathic name for every name of diseases mentioned in the Hindu science of medicine

giddiness, after-effects of drinking wine, loss of eye-sight, etc.

सर्वक्षारस्य निर्माणविधिः ।

सर्वक्षारं चिकीर्षुः शरदि गिरिसानुजं शुचिः प्रशस्तेऽहनि प्रशस्तदेशजातमनुपहतं मध्यमवयसं महान्त सितमोक्षकं पाटयिष्यति । खण्डशः ल्प्यावपाव्य निवाते देशे निचितं कृत्वा सुधा-शर्कराश्च प्रक्षिप्य तिलन ैरादीपयेदथोपशान्तेऽग्नौ तद्भस्म पृथग् गृह्णीयाद् भस्मशर्कराश्च । अथानेनैव विधानेन कूटजपलाशाश्वकर्णपारिभद्रकविभीतकार-ग्वधतिलव कस्नूह्यपामार्गपा ानक्त ल वृषकदली चित्रकपूतीकेन्द्रवृक्षा ोताश्वमारकसप्तच्छदाग्निमन्थ-गुञ्जाश्चत श्च कोषातकीः समू शा दहेत् । ततः क्षारद्रोणमुदकद्रोणैः षड्भिरालोड्य मूत्रैर्वा यथोक्तैरेकविंशतिवारान् ि ाव्य महति ाहे शनैर्द ० विघट्टयन् विपचेत् । स यदा भवत्यच्छो रक्तस्तीक्ष्णः पिच्छिलश्च तमादाय महति ` परि व्येतरं विसृज्य च पुन ावधिश्रयेत् । एव च क्षारोदकात् ड़ ध्यर्द्ध वापनयेत् । ततः कटशर्कराभस्मशर्कराक्षीरपाक[illegible]नीरग्नि-वर्णाः यसे पात्रे तस्मिन्नेव क्षारोदके निषिच्य

पिष्ट्वा ते द्विद्रोणेऽष्टपलसंमितं शङ्खनाभ्यादीनां प्र णं प्रतिवाप्य सततम त्तश्चैनमवघट्टयन् विपचेत्। स यथा नातिसान्द्रो नातिद्रवश्च भवति तथा तेत। अथैनमागतपाकमवतार्यानुस्तप्त-यसे कुम्भे संवृतमुखे निदध्यादेष मध्यमः। एष एवाप्रतीवापः पक्वः संव्यूहिमो मृदुः। प्रतीवापे यथालाभं दन्ती द्रवन्ती चित्रकलाङ्गलकीपूतिक-लतालपत्रीविड़सुवर्चिकाकनकक्षीरीहिङ्गुवचाविषाः समाः श्लक्ष्णचूर्णाः शुक्ति णाः प्रतिवापः। स एव सप्रतीवापः पक्वः पाक्यस्तीक्ष्णस्तेषां यथा-व्याधि ल पयोगः। क्षीणबले तु क्षारोदकमावपेद् बलकरणार्थम्।

एष सर्वक्षारः सुश्रुतोक्तविधानेन गतिसारणार्थं नियोक्तव्यो न तु विषयान्तरे।

Process of preparing swarva-kshara.

A middle-aged black mokshaka tree growing in a valley of a mountain is to be cut into pieces, sometime in the two months following the rains, and kept in a heap in a place protected from drafts of air Some lime stone (or balls of lime-mud dried up, generally known by the name of "ghuting") is also to be kept inside the heap of wood, which is

to be burnt by fire made of sesamus plant The ashes of the wood are then to be separated from the burnt lime-stone, as well as from the burnt soil upon which the act of burning takes place

In the same way, ashes will have to be prepared from the following trees (or plants, as the case may be) —kutaja, palasha, asva karna (a kind of shala), paribhadra, bibhitaki, aragbadha, lodhra, arka, snuhi, apamarga, patali, bisha-karanja, basaka, kadali, chitraka, putika (rama-karpura), kutaja, asphota (bhadra-balli),* karabira, saptaparni, agni-mantha, gunja, and four kinds of ghosha (including deva-dali).

Two thirds of a drona of the ghanta-patali kshara and one third of a drona of the kshara prepared from kutaja and the other trees, referred to above, are to be dissolved with water or cow's urine, six dronas in weight, and filtered for 21 times The solution is next to be subjected to heat till it becomes clear, red, acrid, and sticky, when it will have to be filtered again, rejecting the dregs. The solution, thus filtered, may be used as a liquid kshara, if necessary

Take one kuraba or $1\frac{1}{2}$ kuraba of this solution, and rub it with 8 palas of all these combined —burnt lime, burnt sand obtained from the spot where the wood was burnt, oyster shells burnt, and nabhishankha (a kind of conch shell)—each equal in quantity, and previously made red-hot by heating in an iron

* Bengali, "hapharmali" Asphota may also mean red arka

cauldron. The paste, thus prepared, is to be boiled with two dronas of the liquid kshara, referred to above, turning it, all the while, by an iron ladle in such a way as to make the product neither solid nor liquid. The kshara, thus prepared, is of moderate strength. It would be mild, if prepared in the above way without the mixture of the paste, referred to above. It can be rendered the strongest, if prepared with the addition of four tolas in weight of the fine powder of each of the following, mixed in course of the heating —danti, dravanti, chitraka, langalaki, leaves of nata-karanja, tala-muli, bira-salt, swarji-kshara, swarna-kshiri, hingu, bacha, and ati-visha

These ksharas are to be kept in jars with their mouths covered *

क्षार ।

स्वर्जिका यावशूकश्च क्षारद्वयमुदाहृतम् ।

क्षाराष्टकम् ।

पलाशवज्रि शिखरिचिञ्चार्कतिलनालजाः ।
यवजः स्वर्जि चेति क्षाराष्टकमुदाहृतम् ॥
क्षारा एतेऽग्निना तुल्या गुल्मशूलहरा भृशम् ॥

The two ksharas

Swarjika and java kshara combined are called the two ksharas

* For details see, Chapter XI, Sutra-sthanam, and XXXXII, uttaratantra, Sushruta

The eight ksharas

The following eight are called the eight ksharas —ksharas prepared from (1) palasha, (2) snuhi, (3) apamarga, (4) chincha, (5) arka, (6) tila plant, (7) ears of barley and (8) swarji kshara.

These are like fire and are curer of gulma and colic

षष्ठोऽध्यायः ।

अथ लवणानि ।

लवणं पटु लोतं च लोनं शिवं च कथ्यते ।
लवणानि षडूच्यन्ते सामुद्रं सैन्धवं विड़म् ।
सौवर्चलं रोमकं च चुलिका णं तथा ॥

CHAPTER VI.

Lavanas (salts).

There are six different kinds of salts, viz (1) samudra (marine), (2) saindhava (rock-salt found in the Punjab and sind), (3) bira (an artificial salt), (4) sauvarchala (salt-petre), (5) romaka (salt obtained from the lake, sambar, in Rajputana), and (6) chulika (nava-sara or sal ammoniac).

सामान्येन लवणानां गुणाः ।

लवणः शोधनो रुच्यः पाचनः कफपित्तदः ।
पुं वातहरः कायशैथिल्यमृदुताकरः ॥
बलघ्न आस्यजलदः कपोलगलदाहकृत् ॥

Properties of salts in general

Salt is purifier, increaser of relish in food, digestive, increaser of kapha and pitta, destroyer of manliness and of vayu It slackens and softens the body, impairs strength, induces shedding of water through the mouth, and causes inflammation in the cheeck and the neck

अतियुक्तस्य लवणस्य गुणाः ।

सोऽतियुक्तोऽक्षिपाकास्रपित्तकोठक्षतादिकृत् ।
वलीपलितखालित्यकुष्ठविसर्पतृट्प्रदः ॥

Properties of salt taken in excess.

Salt, taken in excess, causes opthalmia, racta-pitta, intestinal ulcer, falling off of teeth, greyness of hair, baldness, leprosy, erysipelaus, and thirst

(१) सामुद्रलवणम् ।

सामुद्रमक्षिवं चैव वशिरं च समुद्रजम् ।
सामुद्रं दीपनं तीक्ष्णं लघु रुच्यं च सारकम् ।
क्षारगुणयुतं कफपित्तकृद् वायुनाशनम् ॥

(1) SAMUDRA LAVANA (SEA SALT)

It is digestive, acrid, light, increaser of appetite, laxative, having some of the properties of alkalis, increaser of kapha and pitta, and pacifier of vayu.

(२) सैन्धवम्।

सैन्धवं शीतशिवं * च मणिमन्थं च सिन्धुजम्।
सिन्धुदेशे तथा पञ्चनदाख्ये प्राप्यते खनौ।
तदेव दीपनं शीतं लवणमधुरं लघु॥
मृद्वग्निवर्धनं रुच्यं चक्षुष्यं शुक्रदं तथा।
त्रिदोषघ्नं तथा सूक्ष्मं विबन्धव्रणनाशनम्॥

(2) SAINDHAVA (ROCK SALT)

Saindhava is a rock-salt found in the sind and the Punjab It is digestive, producing a cooling effect in the system, saltish-sweet in taste, light, soft, increaser of power of digestion and liking for food, beneficial to eye-sight, increaser of semen, pacifier of the three doshas, capable of entering everywhere into the system, and destroyer of constipation and boils

(३) विड़म्।

विड़ं च विड़गन्धं च काल   णकं तथा।
खण्डं द्राविड़कं चैव विड़   णमासुरम्॥
खण्डलवणकं धूर्त्तं कृतकं क्षारमेव च।
कृत्रिमकं सुपाक्यं च वैद्यकलवणं तथा॥

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* शीतशिवमिति शीतं शीतवीर्यं शिवं लवणमिति। सर्वेषां लवणानां मध्ये केवलं सैन्धवं शीतवीर्य्यम्।

(4) SAUVARCHALA (SALT-PETRE).

It is the same as ushara kshara or salt-petre. It is both an alkali and a salt For the preparation of salt-petre, see page 268

कृत्रिमसौवर्च निर्माणविधिः ।

स्वर्जिक्षारश्च तत् तुल्यं सैन्धवं मेलयेद् द्वयम् ।
सूक्ष्मचूर्णीकृतं सर्वं निदध्याद् मृद्घटे :॥
तदा विनिःक्षिपेत् तत्र चूर्णाधिकं जलं शुभम् ।
पचेत् सर्वं ततो धीरो यत्नतो ह्निना ॥
यावच् चूर्णं द्रुतिं याति ज पि विशोष्यते ।
शोषितेऽपि नीरे सम्यक् किञ्चित्कालं विपाच्यते ।
स्वतः शीतं समुद्धार्यं सौवर्चलमतः परम् ॥
पटुसौवर्चलं तद्धि क्षारसौवर्चलं न तु ।

Preparation of artificial sauvarchala

An equal quantity of powdered swarji (natron) and saindhava (rock-salt) are to be mixed together and dissolved with water in an earthen vessel which is to be heated strongly till the solution melts well and then dried up The heat is to be continued for some time after the drying up of the product.

The product may be used as sauvarchala salt, and not as sauvarchala kshara

(*N B.*—The salt, thus prepared, may be used in lieu of salt-petre, where the emphasis is laid on the word 'salt', but where there is a stress on the word "kshara", only salt-petre, and not its substitute, should be used)

(५) रोमकम् ।*

अस्य नामानि ।

रोमकं रोमलोणं च साम्बरं सम्बरोद्भवम् ।
शाकम्भरीह्रदोद्भवं गड़ाख्यं लवणं हि तत् ॥

अस्योत्पत्तिस्थलम् ।

जयपुराभिधे राज्ये रोमोऽस्ति लोतनीरधुक् ।
ना शाकम्भरी सोऽयं साम्प्रतं सम्बराभिधः ॥
लवणाक्तं जलं तस्य सागरनीरसंनिभम् ।
तज्जलाज् जायते लोतं † रोमकाख्यं तदेव हि ॥
रोमावती नदी तस्माद् रोमात् पुरा हिता ।
लवणं तज्जलोत्थं च संज्ञितं रोमकं पुरा ॥
आसीत् पुरा पुरी तत्र रोमाख्या हि यशस्वती ।
साम्प्रतं वर्त्तते तत्र जयपुराभिधा पुरी ।
सम्बराद्म्बराख्यां हि लेभे तत्र पुरान्तरम् ॥

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* रोमः गर्त्तं ज यइत्यर्थः तस्मात् जायते इति रोमकम् ।

† लोतमिति लवणम् ।

(5) ROMAKA (SAMBAR-SALT)

In the province of Jayapura (in Rajputana), there is a salt-water lake, named Shakambhara, now called Sambar. Its water is as saline as sea-water The salt, produced from the water of this lake, is called "romaka" In ancient times, a river named "Romavati" (now extinct) flowed from this lake The salt which was produced from the water of this river was also called 'romaka' salt In the vicinity of this lake, there was, in ancient times, a famous town, called 'Roma' It was perhaps located somewhere near the modern town of Jaypore (built by king Jaysinha). There is another town in the neighbourhood, named Ambar, which is a corrupted form of Sambar (the modern name of the lake)

अस्य गुणा: ।

रोमकं कटुतिक्तं च तीक्ष्णोष्णं लावणं लघु ।
दीपकं भेदकं चैव पित्तदाहक्षयप्रदम् ।
अभिष्यन्दि तथा सूक्ष्ममर्शोनुद् वायुनाशनम् ॥

Its properties

Romaka or sambara salt is bitter, pungent, and saline. It is acrid, warm, light, digestive, and laxative It gives rise to pittam, inflammation, and waste It helps the emission of phlegm (through nostrils and eyes) It is capable of passing even through the finest and minutest passages of the system, and is a pacifier of vayu

(६) चुलिकालवणम् ।*

पावि गो सारश्च चुलि लवणं त ।
चारोऽयं लवणं चोपरसश्च कथ्यते बुधैः ॥

(6) CHULIKA SALT.

It is the same as nava-sara (or sal-ammoniac) †

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* द्विती ` २१४ पृष्ठं तथा तृतीयखण्डे २६० पृष्ठं द्रष्टव्यम् ।

† See page 215, Vol II, and page 262 Vol III

सप्तमोऽध्यायः ।

अथ विषाणि ।

विषं तु गरलः क्ष्वेड स्य भेदानुदाहरे ।
वरं जंगमं चैव गरं च त्रिविधं विषम् ॥
दशाधिष्ठानमाद्यं तु द्वितीयं षोड़शाश्रयम् ।
गरस्तु कृत्रिमं विषं विरुद्धभोजनादिजम् ॥

CHAPTER VII

Poisons.

Poisons are of three kinds, viz inorganic, organic, and artificial The first is of ten different kinds, and the second of sixteen The third is toxin arising mainly out of the eating together of different kinds of food-stuff which are not compatible with one another (e g. milk and fish or meat, milk and sour things, etc.).

अथ स्थावरविषम् ।

मूलं पत्रं ं पुष्पं त्वक् क्षीरं सार एव च ।
निर्यासो वश्चैव कन्दश्च स्थावरा : ॥

कन्दाख्यं तेषु हि श्रेष्ठमष्टादशविधं हि तत् ।
सक्तुकं मुस्तकं शृङ्गी वालुकं सर्षपाह्वयम् ॥
वत्सनाभं च कूर्मश्च श्वेतशृङ्गी तथाष्टमम् ।
इत्यष्टौ योजयेद् योगे   लकूटादि वर्जयेत् ॥
लकूटं मेषशृङ्गी हलाहलं च दार्दूरम् ।
कर्कटं मर्कटं ग्रन्थि हारिद्रं रक्तशृङ्गकम् ।
केशरं दशमं चेति वर्जनीयं भिषग्वरैः ॥

INORGANIC POISON.

Inorganic poisons are of ten different forms, viz (1) roots, (2) leaves, (3) fruits, (4) flowers, (5) barks, (6) milk of plants or tree, (7) wood (8) exudations, (9) metals, and (10) tubers

Of these, poisons in the form of tubers are the best Such poisons are of eighteen different kinds, viz (1) saktuka, (2) mustaka, (3) shringi, (4) baluka, (5) sarshapa, (6) batsa-nabha, (7) kurma, (8) sweta-shringi, (9) kalakuta, (10) mesha-shringi, (11) halahala, (12) dardura, (13) karkata, (14) markata, (1) granthi, (16) haridra, (17) racta-shringa, and (18) keshara

Of these eighteen, the first eight are to be used according to directions, whereas the last ten (viz. from kalakuta to keshara) are to be avoided altogether.

कन्दविषाणां परिचयः ।

(१) सक्तुकः ।

यद्ग्रन्थिः सक्तुकेनेव पूर्णमध्यः स सक्तुकः ।
पुण्डरीकं स एव हि मध्यश्वेतं च दृश्यते ॥
चित्रमुत्पलकन्दाभं सुपिष्टं शक्तुवद् भवेत् । *
सक्तुकं तद् विजानीयाद् दीर्घवेगं महोल्वणम् ॥

Descriptions of tuber poisons.

(1) *Saktuka.*

Saktuka or pundarika is that kind of poisonous tuber, the interior of which appears to be made of saktu (dried and powdered barley), and is of white colour The tuber itself is as attractive as that of a lily. It gives the appearance of saktu (dried and powdered barley) when pestled well The poison acts very swiftly and is very strong.

(२) मुस्तकम् ।

ह्रस्ववेगं च रोगघ्नं मुस्तकं मुस्तकाकृति ।

(2) *Mustaka.*

Mustaka poison is slow in action. It cures diseases and has the appearance of mustaka (cyperus rotandas).

* चित्रमिति मनोहरम् ।

(३) शृङ्गी।

यस्मिन् गोशृङ्गके बद्धे दुग्धं भवति लोहितम्।
तं शृङ्गीति विजानीयाद् वर्णेन कृष्णपिङ्गलम्॥

(3) *Shringi*

This poisonous tuber, if tied up with the horns of a cow, makes it yield milk of blood-red colour. This tuber is of a blackish tawny colour

(४) वालुकम् (सैकतम्)।

वालुकं वालुकोपमं ज्वरादिसर्वरोगहृत्।
सिकताभिरिवापूर्णो ग्रन्थिरस्य बुधैर्मतः॥

(4) *Baluka* (*saikata*).

Baluka tuber appears to have its inner part filled with sand, as it were. It cures fever and other diseases

(५) म्।

पीतवर्णं ज्वरघ्नं च सर्षपं विषमुच्यते।
कन्दरोम्णि विषं तद्धि सर्षपाभकणाचितम्।
स्थूलसूक्ष्मैः कणैर्युक्तं श्वेतपीतैर्विलोभकम्॥

(5) *Sarshapa.*

Sarshapa tuber is yellow in colour, and is a curer of fever It has got hair-like shoots which only are poisonous The holes or pores where these hair-like shoots grow, are full of particles having

the appearance of mustard seeds Some of these particles are big, and the rest are small Some of them are white, whereas the others are yellow. The tuber itself is, therefore, very attractive to look at

(६) वत्सनाभः ।

(क)

वत्सनाभिनिभः कन्दो न दीर्घः पञ्चकाङ्गुलात् ।
स्थूलतरो न गोस्तनाद् द्विविधो वत्सनाभकः ॥
आशुकारी लघु स्त्यागी* शुक्लः कृष्णोऽन्यथा भवेत् ।
प्रयोज्यो रोगहरणे वत्सनाभिद्वयं मतम् ॥

(ख)

निर्गुण्डीपत्रवर्णायुग् वत्सनाभ्याकृतिस्तथा ।
यत्पार्श्वे न तरोर्वृद्धि र्वत्सनाभः स पाण्डुरः ॥

(6) *Batsa-nabha* (*aconite*).

The tuber, named batsa-nabha, has the appearance of a cow's udder It is not more than five angulis in length; neither is it thicker than cow's udder. It is of two varieties, viz white and black. The first variety is swift in its action, light, and laxative The black variety possesses opposite properties. Both the varieties are used in medicines as well as in rasayana

(b)

Batsa-nabha (or aconite) has the colour of nirgundi leaves It resembles the navel of a calf.

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* त्यागीति मलादेरेचकः ।

Trees and plants growing around it do not thrive at all. It is pale-white in colour.

वत्सनाभस्य गुणाः ।

नेपालशृङ्गो नैपाली चामृतं विषनामकम् ।
वत्सनाभं कटु स्वेद्यं तिक्तं मूत्रलमेव च ॥
आग्नेयं वेदनाघ्नं च सादनं शूलनाशनम् ।
अभिघातरुजं हन्ति वीसर्पं कफजान् गदान् ॥
वातजान् निखिलांश्चापि सन्निपातोद्भवं ज्वरम् ।
आमवातं महाघोरं हृद्रोगमपि दारुणम् ॥

Properties of Aconite

Aconite is bitter and pungent It causes perspiration and discharge of urine It is digestive, remover of pain, causing depression, and curer of colic and pain due to percussion It is efficacious in erysipelas, diseases due to an excess of kapha and vayu, fever due to an excess of the three doshas, rheumatism, and heart disease

(७) कूर्म्मः ।

कूर्मवद् दृश्यते यत्तु तत् कूर्मं इति भाषितम् ।

(7) *Kurma.*

The tuber poison, which resembles a tortoise in appearance, is called kurma

(८) श्वेतश्रृङ्गम्।

श्वेतश्रृंगं विजानीयात् प्रायशः श्वेतश्रृङ्गवत्।
श्रृङ्गिकमिव तद् दुग्धं रञ्जयति गवां खलु।
फणाकारं कथञ्चित् तदतो दर्विकमुच्यते॥

(8) *Sweta shringa*

Sweta-shringa or darvika is like a white horn or snake's hood in appearance Like shringi, it makes a cow yield milk of blood-red colour, if it is tied up with its horns

(९) कालकूटः।

अस्ति विषतरुः कश्चिदश्वत्थसंनिभः खलु।
निर्यासः कालकूटोऽस्य मुनिभिः परिकीर्त्तितः॥
काकचञ्चुनिभो वर्णाकृतिभ्यां ज्ञायते हि सः।
वृत्तः कन्दो भवेदस्य जम्बीरसन्निभासितः॥
कालकूटं विजानीयाद् घ्रातमात्रं मृतिप्रदम्।
स हि क्षेत्रे श्रृङ्गवेरे कंकने मलये भवेत्॥

(9) *Kala-kuta*

There is a poisonous tree of the appearance of an aswattha Exudation of this tree is called kala-kuta This resembles a crow's eye in appearance and in colour.

The tuber of this tree is globular and black, like a lime fruit This tuber is so strongly poisonous that even its odour is sufficient to take

away the life of a human being This tree grows in the provinces, named "shringabera," "Konkan" and the "malaya" hills in the Deccan

(१०) मेषशृङ्गी ।*

विकशृङ्गतुल्यो यो मेषशृङ्गी स कथ्यते ।
शृङ्गिकमिव तद् दुग्धं रञ्जयति गवां खलु ॥

(10) *Mesha-shringi*

It resembles a ram's horn in appearance It also makes a cow yield milk of blood-red colour, if it is tied up with its horns

(११) हलाहलः ।

गोस्तनाभफलो गुच्छस्तालपत्रच्छदस्तथा ।
तेजसा यस्य दह्यन्ते समीपस्था द्रुमादयः ॥
असौ हालाहलस्तरुः किष्किन्ध्यायां हिमालये ।
दक्षिणाब्धितटे देशे कंकने च प्रजायते ॥
भंगुराकन्दवत् कन्दः तरोस्तस्यापि कथ्यते ।
अन्तर्नीलो बहिः श्वेतः कन्दोऽसौ हि हलाहलम् ॥

(11) *Halahala*

The tree named 'halahala' has fruits like cow's udder. The bunch of its fruits has the appearance of an umbrella made of palm leaves No tree, plant,

* मेषशृङ्गाख्यं विषदोषहीनं द्रव्यान्तरं वर्त्तते ।

etc. grows in the vicinity of this poison tree. It grows generally in kiskindhya, the Himalayas, the south-sea coast, and kankana Its tuber has the appearance of the tuber of atibisha The halahala tuber is blue inside and white in the outside.

(१२) दार्दूरम् ।

दर्दूराख्ये गिरौ यत्तु जायते मलयान्तिके ।*
दार्दूरं कथ्यते तद्धि ब्रह्मपुत्रश्च कर्दमम् ॥
वर्णेन कपिलं तच्च कर्दमसंनिभं तथा ।
दर्दूरे मलये चापि जायते तद्विषोल्बणम् ॥

(12) *Dardura*

It grows in the hill named 'Dardura' situated near the Malaya mountain It is also called brahma-putra and kardama It is tawny in colour and is like mud in appearance It is strongly poisonous and grows in the Dardura and the Malaya hills

(१३) कर्कटं कर्कोटं वा ।

कर्कोटं कपिवर्णं स्यात् कर्कोटकसमप्रभम् ।†
तदेव त्रिषमं विषं रेखाभ्यन्तरतो मृदु ॥

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* मलयाचलसन्निधौ दर्दूरनामा गिरिरस्ति । तथा हि—स्तनाविव दिशस्तस्याः शैलौ मलयदर्दूरौ [रघुवंशम् ४।५१] ।

† कर्कोटक इत्यस्य स्थले कर्कटक इत्यस्य वितपाठस्य साधुतरतापि सुधीभिर्विचार्य्या ।

(१६) हारिद्रः ।

हरिद्रातुल्यमूलो यो हारिद्रः स उदाहृतः ।
विराटे जायते तस्माद् वैराटकं च कथ्यते ॥
मूलाग्रयोः सुवृत्तः स्यादायतः पीतगर्भकः ।
कञ्चुका : स्निग्धपर्वा हारिद्रः शक्तुकन्दकः ॥

(16) *Haridra or vairata.*

The tuber of this plant is like that of turmeric. It is also called "vairata", simply because it grows mainly in the province of Virata Both the extremities of this tuber are well-rounded It is broad-shaped, and is yellow inside. It has a fine skin or covering Each of the parts of this tuber between one knot and the nearest is smooth or appearing to be smeared with oil. This tuber (like saktuka) resembles, when pestled and made into a paste, shaktu or fried and powdered barley

(१७) रक्तशृङ्गी ।

गोशृङ्गाग्रेऽथ विक्षिप्तो नासयास्रक् प्रवर्त्तते ।
लघुर्गोस्तनवत्कन्दो रक्तशृङ्गीति तद्विषम् ॥

(17) *Racta-shringi.*

This tuber, if thrown upon the horns of a cow, causes the shed of blood through its nostrils. This tuber is light in weight and has the appearance of cow's udder.

(१८) प्रदीपनः ।

शुष्काद्र इव किंजल्कमध्ये तत् केशरं विदुः ।
वर्णतो लोहितः स स्याद् दीप्तिमान् दहनप्रभः ॥
महादाहकरः पूर्वैः कथितः स प्रदीपनः ।
महाविषाह्वयश्चासौ केशरश्चापि कथ्यते ॥

(18) *Keshara, Pradipana or Mahabisha*

It has the appearance of a dried ginger tuber, kept in the midst of filaments or blossoms of a flower It is red and resembles fire in colour. It causes a terrible inflammation on that part of the body which comes in contact with this poison

विषाणां व्यवहारः ।

धातुवादे विषार्थे च क्षेमकार्ये * क्वचित् क्वचित् ।
युज्यते कालकूटादि न भैषज्ये रसायने ॥
सक्तुकादिं प्रयुञ्जीत सर्वरोगे रसायने ।
विप्रादिजातिभेदेन यथाविधि सुशोधितम् ॥

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* क्षेमकार्यमिति रसादिना नागवङ्गादीनां स्वर्णे वा रौप्ये रूपान्तरीकरणम् । एतदेव वेधनकार्य्यमपि कथ्यते । तथाहि रामराजीयग्रन्थस्यानुक्रमणिकायां—

रसविद्या त्रिधा प्रोक्ता धातुवादश्चिकित्सितम् ।
दुर्लभा क्षेमविद्या च सर्वविद्यासु ता वराः ॥
चिकित्सा द्वितयी ज्ञेया व्याधीनां जरसस्तथा ।
जराव्याधिविनाशिनी चिकित्सा हि रसायनम् ॥

Use of tuber-poisons

The ten kinds of poisons beginning with kala-kuta may be used sometimes for the purposes of metallurgy, preparation of poison, and kshema operations or alchemy *, but they should never be used in medicines of any kind

Only the eight tuber-poisons beginning with saktuka should be used, well-purified and as prescribed in the medical treatises. In using these eight in medicines, care should be taken to see that their use is decided upon with reference to the caste or class of poisons to which a particular member of this group belongs (see below)

विषाष्टकस्य जातिभेदः ।

(१)

श्वेतो रक्तश्च पीतश्च कृष्णश्चेति चतुर्विधः ।
ब्रा णः क्षत्रियो वैश्यः क्रमाज् ज्ञेयश्च शूद्रकः ॥
श्वेता वा यदि वा पिङ्गा मधुरा वोषराऽपि वा ।
लोमशा ब्रह्मजातिः स्यात् क्षत्रजातिस्तु लोहिता ॥
पीता वा मधुरा किञ्चित् वैश्यजातिस्तु धूसरा ।
कृष्णा शूद्रजातिर्ज्ञेया विषाणां च भिषग्वरैः ॥

* The science of kshema or khema deals with transformation of base metals into gold The term khema has been contracted into the Persian "kimia" or al chemia Vide page 100 of the author's work, 'Indian civilization and its Antiquity"

(२)

क्षीरं संपूर्य भाण्डेऽपि विषं दत्त्वा विलक्षयेत् ।
यद्वर्णं जायते क्षीरं तेन जातिं विनिर्दिशेत् ॥
शुक्लं रक्तं तथा पीतं कृष्णं चेति चतुर्विधम् ।
वर्णानि ब्रा ण्णादीनां ज्ञायन्ते भिषजां वरैः ॥
क्षिप्तं दुग्धे विषं वैद्यो जानीयात् क्रमशो यदि ।
श्वेतं रक्तं तथा पीतं कृष्णं चोष्णं तदेव च ॥
ब्राह्मणः क्षत्रियो वैश्यः शूद्रश्च हि यथाक्रमम् ॥

Caste or classification of the eight poisons referred to above

(1)

Brahmana, kshatriya, vaisya, and shudra are generally of the following colours, respectively — (1) white, (2) red, (3) yellow, and (4) black

A poison is of the Brahmana or wise caste, if it is white or tawny, is sweet or saltish in taste, and has got hair-like shoots over its body The kshatriya (or warrior class) of the poisons is red in colour. The vaisya (merchant class) is yellow or grey and somewhat sweet in taste The shudra (or the agricultural and serving class) is black in colour

(2)

The caste of a poison may also be ascertained by throwing it into milk. If the milk into which the

poison has been immersed assumes a white colour, the poison is of the Brahmana caste, if the milk turns red in colour, the poison is of the kshatriya caste, if the milk is of yellow colour, the poison is of the vaisya caste, and if the milk is of black colour, the poison is of the shudra caste The milk also grows warm at the touch of the poison

ब्राह्मणादिविषाणां गुणाः ।

रसायनवरो विप्रः क्षत्रियो रसकर्मकृत् ।
वैश्यः कुष्ठविनाशनः शूद्रस्तु मृतिदायकः ॥
ब्रा णो दीयते रोगे क्षत्रियो विषभक्षणे ।
वैश्यस्तु क्षुद्ररोगेषु सर्पदष्टाय शूद्रकः ॥

Properties of poisons, according to caste.

The Brahmana (white-coloured) poison is a curer and preventer of diseases and senile decay. The kshatriya (red-coloured) is used in mercurial operations. The vaisya (yellow-coloured) is a curer of leprosy, and the shudra (black-coloured) is giver of death.

The Brahmana variety of poisons is to be used in diseases; the kshatriya variety to be given to a patient who has swallowed some poison; the vaisya variety is to be used in diseases of minor importance, and the shudra variety to be given to a man who has been bitten by a poisonous snake

सामान्येन विषाणामवगुणा ।

सर्वाणि शलैर्ज्ञेयान्येतानि दशभिर्गुणैः ।
रुक्षमुष्णं तथा तीक्ष्णं सूक्ष्ममाशु व्यवायि च ।*
विकाशि † विसरं चैव लघ्वपाकि च तत् स्मृतम् ॥
तद्रौक्ष्यात् कोपयेद् वायुमौष्ण्यात् पित्तं सशोणितम्।
मानसं मोहयेत् तैक्ष्ण्यादङ्गबन्धांश्छिनत्यपि ॥
शरीरावयवान् सौक्ष्म्यात् प्रविशेत् विकरोति च ।
आशुत्वादाशु तद्धन्ति व्यवायात् प्रकृतिं ‡ भजेत् ॥
क्षरयेच्च विकाशित्वाद् दोषान् धातुमलानपि ।
वैसर्य्याद्तिरिच्येत दुश्चिकित्स्यं च लाघवात् ॥
दुर्जरं चाविपाकित्वात् तस्मात् क्लेशयते चिरम् ।
स्थावरं जंगमं यच्च कृत्रिमं चापि यद्धितम् ।
सद्यो व्यापादयेत् तत्तु ज्ञेयं दशगुणान्वितम् ॥

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* पूर्वं व्याप्याखिलं कायं ततः पाकं च गच्छति । व्यवायि तद् यथा भङ्गा फेनश्चाहिसमुद्भवम् ॥ फेनमत्र निर्यासः अहीति अहिनाम गुल्म न तु सर्पः ।

† विकाशीति ओजःशोषणपूर्वकसन्धिबन्धनशैथिल्यकारकम् । विसरमिति भेदकम् ।

‡ प्रकृतिमिति आत्मव्यतीतनिखिलदेहम् । भजेदिति व्याप्नुयात् ।

Evil properties of the poisons in general.

The following are the demerits of poisons in general —(1) capacity for drying up the oily or fatty substance in the system, (2 causing heat, (3) violence, (4) capacity to enter into the minutest part of the body, (5) quickness of action, (6) capacity to spread through the whole of the system without being digested, (7) capacity to dry up the vital fluid which pervades the whole system, and to slacken the joints of the different limbs, (8) capacity to split up (9) lightness, and (10) incapacity for being digested.

A poison has the following functions on account of its possessing the ten demerits mentioned above, respectively :—It (1) increases vayu, (2) increases pittam and vitiates blood, (3) deprives the mind of consciousness and slackens the cohesion of the different limbs to one anothor, (4) spreads even through the minutest parts of the body and deranges them,(5) can take away life very quickly, (6) attacks the whole of the physical body without being digested at all, (7) destroys the three doshas (vayu, pittam, and kapha), the seven dhatus (chyle, blood, semen, flesh, bone, marrow, and fat), and the dirts (urine, stool, etc), (8) causes much purgation, (9) is too light to be easily caught hold of and neutralized by medicines, and (10) incapacity for being digested which is the cause of the duration of the trouble due to it.

Any poison, whether organic, inorganic, or artificial, if endowed with all these demerits, has the power to kill life in a short time.

विशेषेण स्थावरविषजनितविकाराः ।

स्थावरं तु ज्वरं हिक्कां दन्तहर्षं गलग्रहम् ।
फेनछर्द्यरुचिश्वासं मूर्च्छां च कुरुते विषम् ॥

Special Troubles due to inorganic poison,

These are —fever, hiccough, tickling and irritating sensation in the teeth, swelling of the neck and throat, coming out of froth from the mouth, nausea, aversion to food, difficult respiration, and loss of consciousness

सहसा विषशीलने विकाराः ।

वेगा ह्यष्ट प्रजायन्ते सहसा विषशीलिनः ।
प्रथमे त्वग्विकारः स्याद् द्वितीये वेपथुर्भवेत् ॥
दाहो वेगे तृतीये स्याच् चतुर्थे देहवैकृतम् ।
फेनोद्गतिः पञ्चमे स्यात् स्कन्धयोर्भङ्गिता :॥
वेगे च सप्तमे जा मष्टमे मरणं ध्रुवम् ।
एवं ज्ञात्वा भिषग्वरः प्रतीकारं समाचरेत् ॥

Troubles due to a sudden entrance of poison into the system

Eight different stages follow the entrance of poison into a human system In the first stage, there is a discoloration of the skin , in the second, there is shivering , in the third, inflammation , in the fourth, disfigurement of the whole body , in the fifth,

coming out of froth from the mouth, in the sixth, breaking of the shoulders; in the seventh, ... of movement of the limbs, and the eighth ... is the stage of death

Having regard to all these, a physician should treat the patient

विषजविकारस्य चिकित्सा ।

(१)

अतिमात्रं विषे भुक्ते वमनं रयेत् तदा ।
...जादुग्धं प्रदद्याच्च यावद् वान्तिर्न जायते ॥
तद्दुग्धं दीयते पुनः पुनरेव वमेः परम् ।
न देयं तत् पुनर्वारं यदा वान्तिर्गमिष्यति ॥
दुग्धं यदा देहे स्थिरीभवति देहिनः ।
विषवेगं तदोत्तीर्णं जानीयात् शलो भिषक् ॥

Treatment of poison

(1)

On the entrance of poison into a human system, the patient is to be made to vomit He is to drink goat's milk so long as he does not commence vomitting. Then he is to continue drinking the same milk after each act of vomiting, till the vomiting stops altogether. The strength of the poison is to be considered nullified as soon as the drinking of goat's milk is followed no more by vomiting. In other words, no more milk is to be drunk by the patient

when it is found that the last draft of milk is not vomited out.

(२)

अतिमात्रे विषे पीते प्रतिकार्यं हि सत्वरम्।
पित्तान्तं वमनं कार्यमजादुग्धस्य पानतः॥
अथवा राजिकाचूर्णलवणवारिशीलनात्।
मदनस्य फलेन वा मीनधौताम्बुनाऽपि वा॥
रेचनं हि तदा कार्यं कफान्तं कविशेखरैः।
गोघृतं च पिबेत् ततो विषघ्नं जीवनप्रदम्॥

(2)

Poison, taken in an excessive quantity, should be remedied at once. The patient is first of all to be made to vomit till he vomits pittam (or bile). The vomiting is to be effected by means of drinking goat's milk; or water mixed with powdered raji (rye seeds) and saindhava salt; or madana fruit pestled with water; or water with which fish has been washed off. After vomiting, the patient is to be purged till kapha or mucus comes out without stool. He is next to drink some cow's ghrita (clarified butter), which is a destroyer of poison and giver of vitality.

(३)

विषं हन्याद् रसः पीतो रजनीमेघनादयोः।
सर्पाक्षी टंकनं वापि घृतेन विषहृत् परम्॥

पुत्रंजीवफलान्तःस्था मज्जा वा निम्बुवारिणा ।
पीता च लेपिता गात्रे नेत्रयोश्चांजनीकृता ॥

(3)

The following may be used for the purpose of destroying poison —(a) drinking of the juices of turmeric tuber and meghanada (tanduliya), or (b) gandha-nakuli or tankana, mixed with clarified butter, or (c) kernel of the fruit of putranjiva, drunk with lemon juice, and the same pestled with water and used as a plaster upon the skin and as a collyrium for the eyes.

(४)

जातीनीलीश्वरीसिन्धुकाकमाच्यद्रिकर्णि ।*
त्रिफला करवीरं च कुष्ठं मधुकजीरकम् ॥
क्षीरवृक्षत्वगेलेति विषघ्नोऽयं गणः स्मृतः ।
विषघ्नं गोघृतं चैव माङ्गल्यं जीवनं स्मृतम् ॥

(4)

The following group of vegetable drugs is a destroyer of poison —jati (jessamine), nili (indigo plant), iswari mula, saindhava (rock-salt), kaka machi, aparajita, triphala, karabira, kushtha, jasthi-madhu, jira, barks of kshira trees, (such as, aswattha, vata, etc.) and ela (cardamoms).

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* ईश्वरीति ईश्वरीमूलं ईशेर मूल इति भाषा ।

Cow's butter (clarified) is also a destroyer of poison

(५)

अतिमात्रे विषे पीते पेयं घृतमनन्तरम् ।
सभार्गीदधिधूमोत्थसारिवातण्डुलीयकम् ।
आगारधूममञ्जिष्ठायष्ट्याख्यैश्च समन्वितम् ॥

(5)

If poison is taken in excess, cow's ghrita (clarified butter), mixed with bhargi, dadhi (curd), vajra-kshara (kshara prepared from snuhi plant), anantamula, tanduliya, soot (smoke condensed), manjista, and jastimadhu, should be swallowed by the patient

(६)

विषार्त्तो मधुसर्पिर्भ्यां चूर्णितामर्जुनत्वचम् ।
टंकनं मेघनादेन मधुना सह वा पिबेत् ॥

(6)

One who has taken poison in excess should take powdered bark of arjuna, mixed with honey and clarified butter, or he should take purified tankana mixed with honey and the juice of tanduliya roots.

प्रशस्तविषस्य गुणाः ।

युक्तियुक्तं विषं ज्ञेयं प्राणदायि रसायनम् ।
योगवाहि त्रिदोषघ्नं बृंहणं वीर्यवर्द्धनम् ॥

ये दुर्गुणा विषेऽशुद्धे ते स्युर्हीना विशोधनात्।
तस्माद् विषं प्रयोगेषु शोधयित्वा प्रयोजयेत्॥

Merits of good poisons

Poison, if taken in the prescribed way, is an increaser of vitality and curer and preventer of diseases and senility. It is an increaser of the properties, good or evil, of a thing which is taken with it. It pacifies the three doshas, is nutritious, and increases semen The demerits of salutary poisons are removed by their purification (in the way to be described later) Poisons are, therefore, to be duly purified, before they are used as medicine

कन्दवि संग्रहविधिः।

उद्धरेत् फलपाकान्ते विषं नवं घनं गुरु।
अव्याहतं विषहरैर्वातादिभिरशोषितम्।
रक्तसर्षपतैलेन लिप्तवाससि धारयेत्॥

How tuber-poison is to be procured

Tuber poisons (of course, only those of them which are commendable) are to be taken out only when their fruits have ripened, when they are still fresh and heavy; and have not yet been deteriorated by such antipoisonous agencies as wind, etc. Thus procured, they are to be kept wrapped up in clothes saturated with the oil of red mustard seeds.

कन्दविषस्य शो ।

प्रथमोविधिः ।

कर्त्तितं चणकप्रायं विषं संरच्य भाजने ।
तत्र गोमूत्रकं क्षिप्त्वा प्रत्यहं नित्यनूतनम् ॥
शोषयेत् त्रिदिनादूर्द्ध्वं धृत्वा तीव्रातपे ततः ।
चूर्णितं तत् प्रयुञ्जीत गालितं वाससा विषम् ॥

Purification of tuber poisons.

First process

These are purified, if they are cut into pieces of the size of chanaka grains, and kept immersed for three days in a pot containing cow's urine, which is to be replaced by fresh urine after every 24 hours. The pieces are then to be dried by the strong heat of the sun. They are next to be powdered, and sifted through a piece of cloth The poison, thus purified, may be used in medicines

द्वितीयोविधिः ।

दोलायां त्रिफलाक्वाथे छागीक्षीरे दिवानिशम् ।
पाचितं शुद्धिमायाति कन्दाख्यं शुभदं विषम् ॥

Second process.

Tuber poisons of beneficial nature are purified, if they are boiled, by means of a Dola-Jantram, with decoction of triphala and goats' milk, for 24 hours at a stretch.

तृतीयोविधिः।

गोमूत्रपूर्णपात्रे च दोलायन्त्रे विषं पचेत्।
यामाष्टकं प्रयत्नेन ततोऽयं शुद्धिमाप्नुयात्॥

Third process

Poisons are purified, if they are boiled for 24 hours in a Dola-Jantram, filled with cow's urine.

कन्दविषस्य मारणम्।

समटंकणसंपिष्टं तद्विषं मृतमुच्यते।
योजयेत् सर्वरोगेषु न विकारं करोति तत्॥

Killing of tuber poison

Purified tuber poison is killed, if it is rubbed with an equal quantity of tankana. It may then be used in medicines without producing any disturbance in the system.

विषसेवने पात्रापात्रम्।

शुद्धं विषं योगवाहं योज्यं योगे रसायने।
दातव्यं सर्वरोगेषु घृताशिने हिताशिने॥
क्षीराशिने प्रदातव्यं रसायनवते नरे।
न क्रोधिते न पित्ता न क्लीवे न नृपालये॥
क्षुत्तृष्णाश्रमघर्माध्वशोषिणे क्षयरोगिणे।
गर्भिणीबालवृद्धेषु रुक्षेषु न कदाचन॥
न दातव्यं न भोक्तव्यं विसंवादे विषं तथा।
आचार्येण तु भोक्तव्यं शिष्यप्रत्यय रणात्॥

Persons fit to take poison.

Purified poison, which is an increaser of the properties of materials with which it is taken internally, should be used as an ingredient of medicines, meant for the cure of diseases only and of those meant for the cure and prevention of disease and senility It may be applied in all sorts of diseases to one who takes clarified butter, salutary diet, milk, and observes the rules and regulations prescribed for taking a rasayanam

Poison should not be administered to patients of the following description —those who are irritable , those who have an excess of pittam ; those who are impotent , members of a royal family , those who are worn out by hunger, thirst, physical strain, perspiration, and travels , those who have got consumption , pregnant women, children, old men, and those whose skin and other parts of the body appear to be rough and devoid of oily substance

Neither should poison be given or taken when there is a quarrel between the physician and the patient. In order to convince the disciple of the wholesomeness of poison, the precepter himself should take it in the presence of the former

विषसेवनस्य विधिः ।

अश्वगन्धां त्रिशूलिनं गोजिह्वां त्रिफलामपि ।
प्रथमं भक्षयित्वा च सेवयेद् गरलं ततः ॥

ब्रह्मचर्यं प्रयत्नेन विषपाने समाचरेत्।
पथ्यं स्वस्थमना भुक्त्वा तदा सिद्धिर्न संशयः॥
गव्यक्षीरघृतं पेयं शाल्यन्नं भक्षयेत् तथा।
शीतलं च पिबेत् तोयं पित्तलानि विवर्जयेत्॥
जांगलानि च मांसानि छागलोहं च मद्गुरान्।
शर्करां माक्षिकं क्षीरं सर्वं सेव्यं सुशीतलम्।
सेव्यं यत्नात् सदा पथ्यमपथ्यं दूरतस्त्यजेत्॥
विषं युञ्जीत नित्यं वै रसायनगुणैषिणः।
घृतोपस्कृतदेहस्य विशुद्धस्य हिताशिनः॥
सात्त्विकस्योदिते भानौ योज्यं शीतवसन्तयोः।
ग्रीष्मे चात्यधिके व्याधौ न वर्षासु न दुर्दिने॥

Directions for taking poison.

One who wants to take poison as a medicine should take, first of all, a decoction of aswa-gandha, gojihva, and triphala, mixed with mercury (either incinerated or in a state of compound with sulphur), and should commence taking poison from the next day One who takes poison should observe the following directions during the period he takes the poison :—(1) He should abstain from sexual intercourse ; (2) should take his diet without any perturbation of the mind , (3) should take cow's milk and clarified butter, with rice of shali paddy , (4) should drink cold water, meat of jangala animals, ... blood, madgura fish, sugar, honey, and milk—

everything cold, and (5) whatever he should take should be salutary according to the Ayurveda.

The man who wishes to prevent or cure diseases as well as senility may take poison every day (in doses to be described below). Such a man should be of pure character, and should have previously refined his system by drinking clarified butter and taking salutary diet Poison should be taken in the winter and spring In cases of emergency, it may also be taken in summer, but should never be taken in the rainy season and in a bad weather

विषभक्षणे मात्रा ।

आरोटं * भक्षयेत् पुण्यं विषं सर्षपमात्रकम् ।
प्रथमे दिवसे पश्चाद् द्वितीयादौ द्विसर्षपम् ॥
पञ्चमे दिवसे विषं भक्षयेत् सर्षपत्रयम् ।
षट्सप्ताष्टदिनेऽप्येवं नवमे वेदसंख्यया ॥
भक्षयेद् राजिकावृद्धया यावद् गुञ्जामितं भवेत् ।
यवमात्रं ग्रसेत् स्थो गुञ्जामात्रं तु कुष्ठवान् ॥
मासमात्रप्रयोगेण हरेद् विषम् ।
पुण्डरीकं सविस्फोटं श्वेतमौदुम्बरं तथा ॥
छिन्नभिन्नं कापालाख्यं क्लिन्नाह्वं शवगन्धि च ।
षण्मासस्य प्रयोगेण कामरूपो भवेन्नरः ॥
संवत्सरप्रयोगेण दिव्यदेहो भवेत् स हि ॥

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* आरोटमिति सुशोधितम् ।

मात्रया भक्षितं यत्नाद् विषमप्यमृतायते ।
अमृतं सहसा युक्तं शोधितं विषमेव वा ॥
सर्वविधविकाराय मृत्यवे वा न संशयः ॥

Doses in which poison is to be taken.

The dose in which good and purified poisons are to be taken is one sarshapa on the first day; two sarshapas a day on the second, third, and fourth days; three sarshapas on the fifth, sixth, seventh, and eighth days; four sarshapas on the ninth day The dose is to be increased by one sarshapa a day till it reaches one gunja or 36 sarshapas A healthy man should not take more than one java or six sarshapas a day, but a leper should take one gunja in the maximum

One month's use of poison, in the prescribed way, cures kushtha (leprosy) of eight different kinds, viz. pundarika, kustha with bisphota, white kustha or leucoderma, audumbara, chhinna-bhinna, kapala, klinna, and shavagandhi *

Six month's use of poison makes a man beautiful. One year's use cures all sorts of diseases Two year's use makes a man have a very beautiful complexion.

Taken in proper doses, poison acts like nectar. On the other hand, nectar or poison, taken all on a sudden, causes all sorts of troubles and even death

* These should be compared with those given in Madhava Nidanam etc.

विषसेवने पथ्यम् ।

घृतं क्षीरं सितां क्षौद्रं गोधूमं सिद्धतण्डुलम् ।*
मरिचं सैन्धवं द्राक्षां मधुरं पानकं हिमम् ॥
ब्रह्मचर्यं हिमं देशं हिमं कालं हिमं जलम् ।
विषस्य सेवको मर्त्यो भजेदतिविचक्षणः ॥

Diets considered salutary at the time of taking poison

The following are considered beneficial to one who takes poison —

Clarified butter, milk, sugar, honey, wheat, rice prepared from boiling paddy and then drying it up and removing the husk in the usual way, maricha (black pepper), rock-salt, raisin, sweet and cold water, abstinence from sexual indulgence, residing in cold country, cold weather, and cold water

विषसेवने अपथ्यम् ।

अभ्यस्तेऽपि विषे यत्नाद् वर्जनीयान् विवर्जयेत् ।
कट्वम्ललवणं तैलं दिवास्वप्नलातपान् ॥

* तण्डुलं द्विविधं यथा आतपतण्डुलं सिद्धतण्डुलं च । केवल-सूर्यातपयोगपूर्वकधान्योक्षि (ढिंकि) घातेन धान्यतुषमपसार्य यत् तण्डुलं निर्मीयते, तदातपतण्डुलं कथ्यते । आदौ जलसिद्धं धान्यं पूर्वोक्तप्रकारेण निस्तुषीकृतं तु सिद्धतण्डुलमित्यभिधीयते । पूर्व्वं कथञ्चिद् वायुवर्द्धकमन्तिमं तु तद्दोषविरहितं लघुतरं चेति विज्ञेयम् ।

दृग्विभ्रमं कर्णरुजमन्यांश्चानिलजान् गदान् ।
विषं रुक्षाशिनः कुर्यान् मृत्युमेव त्वजीर्णिनः ॥

Restrictions in diet in poison

The following are to be avoided during the time poison is taken, even if one gets accustomed to it — pungents, sours, saline food, oil, sleeping in day time, and heat of fire and of the sun. The man who, while taking poison, takes his diet without clarified butter being mixed with it, suffers from derangement of the eye-sight, diseases of the ears, and many other diseases due to the excess of vayu Taking of poison by one who suffers from indigestion may lead even to one's death.

विषस्य प्रयोगः ।

वातज्वरे विषं पेयं मस्तुना सहितं तथा ।
क्षीरेण सहितं तत्तु पातव्यं पित्तजे ज्वरे ॥
कफजे छागमूत्रेण सर्वजे त्रिफलाम्भसा ।
रोध्रचन्दनषड्ग्रन्थाशर्कराघृ ाक्षिकैः ॥
क्षीरेण च विषं युक्तं जीर्णज्वरहरं परम् ।
निकुम्भकुम्भत्रिफलासर्पिर्मधुविषैः कृतः ॥
निहन्ति मोदको जीर्णज्वरमेहत्वगामयान् ।
शिखिकर्णिरसोपेतं विषमज्वरजिद् विषम् ॥

Uses of inorganic poison

Inorganic poison of a benefic nature (such as aconite) and duly purified, cures fever due to vayu, if taken with mastu (butter milk) It cures fever due to pittam, if taken with milk, and that due to kapha, if taken with goat's urine Fever due to the three doshas is cured by poison taken with triphala water. Jeerna-jwara (a kind of remittent fever) is cured by poison, taken with lodhra, chandana, bacha, sugar, ghrita, honey, and milk Jeerna-jwara, prameha, and skin diseases are cured by poison, taken with root of danti, root of trivrit, triphala, ghrita, and madhu (honey) Poison cures vishama-jwara (Malaria, kala-azar, etc), if taken with the juice of shikhi-karna (nila-kantha vasaka).

विषं यष्ट्याह्वयं रा सेव्यमुत्पलकन्दकम् ।
तन्दुलोदकपीतानि रक्तपित्तस्य भेषजम् ॥
रास्नाविडङ्गत्रिफलादेवदारुकटुत्रयम् ।
कं क्षौद्रममृता विषं च श्वासकासजित् ॥
सिता रसविषक्षीरप्रवालमधुकान्विता ।
श्वासहिक्कापहा लीढा छर्दिघ्ना तु विषान्विता ॥
क्षीरोशीरमधुक्षाररजनीकूटजत्वचः ।
च्यवनप्राशसंयुक्तं विषं क्षपयति क्षयम् ॥

Racta-pitta is cured, if poison is taken with jasti-madhu, rasona, ushira, and root of utpala (water lily), all rubbed with water dissolved with powdered rice.

Asthma and cough are cured, if poison is taken with rasona, viranga, triphala, deva-daru, trikatu, padma wood, and guruchi Asthma and hiccough are cured if poison is taken with sugar, mercury, milk, ashes of pravala (coral), and jasti-madhu Poison cures nausea, if taken with milk, ushira, madhu, java-kshara, haridra, and bark of kutaja. It cures phthisis, if taken with chyavana prasa (a well-known medicine to be described in a subsequent volume)

मुस्तावत्सकपाठाग्निव्योषप्रतिविषाविषम् ।
धातकीमोचनिर्यासं चूतास्थि ग्रहणीहरम् ॥
कृच्छ्रघ्नं विषपथ्याग्निदन्तीद्राक्षानिशावृषाः ।
शिलाजतु विषं त्र्यूषमुदावर्त्ताश्मरीहरम् ॥

Musta, indra-java, patha, chitraka root, trikatu, ati-visha, dhataki flower, mocha-rasa (exudation of kapock tree), kernel of the stone of a mangœ fruit, and poison, all combined, cure chronic diarrhoea Poison, haritaki, chitraka roots (or bhallataka ?), danti roots, draksa (raisin), haridra, and vasaka, all mixed together, can cure difficulty in urination Shilajatu, poison, and trikatu, mixed together, can cure ashmari and udavarta

गोमूत्रक्षारसिन्धूत्थविषपाषाणभेदक ।
वद् दारयत्येतदेकतः पीतमश्मरीम् ॥

त्रिफलास्वर्जिकाक्षारैर्विषं गुल्मप्रभेदनम् ।
पिप्पली पिप्पलीमूलं विषं शूलहरं तथा ॥
विषं द्रवन्ती मधूकं द्राक्षारास्नाशठीकणाः ।
विषा वेल्लमिशिक्षारं गुल्मप्लीहनिवर्हणम् ॥
प्लीहोदरघ्नं पयसा शताह्वा कृमिजिद् विषम् ।
वायसीमूलनिष्काथयुतं कुष्ठहरं विषम् ॥
पयस्या * राजवृक्षत्वक् त्रायन्ती वाकुची वला ।
प्लीहघ्नीभकणा एषां क्वाथेन कुष्ठजिद् विषं ॥

Cow's urine, java-kshara, saindhava salt, tuber poison, all mixed with the juice of pashana-bhedi can cure stone disease Tuber-poison, mixed with triphala and swarji-kshara, can cure gulma (tumours in the belly). Tuber-poison with pippali roots can cure colic Dravanti, madhuka, draksha, rasna, shathi, pippali, ati visha, biranga, mishreyi (ani-seed) and java-kshara, all mixed with tuber-poison, can cure gulma and enlargement of the spleen Sulpha, biranga, and tuber-poison, taken with milk, can cure enlargement of the spleen Tuber-poison, taken with the decoction of the roots of kaka-machi, is a curer of leprosy.

Leprosy is cured, if tuber-poison is taken with decoction of arka-puspi, arag-badha, trayamana, bakuchi, bala, rohitaka, and gaja-pippali

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* पयस्येति अर्कपुष्पी ओक्रा इति भाषा ।

अथ जंगमविषम् ।

जंगमस्य विषस्योक्तान्यधिष्ठानानि षोड़श। तत्र दृष्टिनिःश्वास-दंष्ट्रानखमूत्रपुरीषशुक्रलालार्त्तवमुखसंदंशविषर्द्धित-गुदास्थिपित्तशूकशवानीति। अत्र विस्तरार्थं सुश्रुतस्य कल्पस्थाने तृतीयोऽध्यायो द्रष्टव्यः।

विषेषु जंगमाख्येषु ग्राह्यं नागोद्भवं विषम् ।
शस्तं बलवतो यूनः कृष्णसर्पाद् विषं नवम् ॥
एतच्चैवागदश्रेष्ठं त्रिदोषघ्नपरं क्रमात् ।
दीपनं कुरुते सद्यो वाड़वाग्निसमं हि तत् ॥
सन्निपातप्रतीकारप्रभावप्रभुरुच्यते ।
यथाविधिप्रयुक्तं तद् विषमप्यमृतायते ।
मृतसञ्जीवनं तद्धि विसूचिषु ज्वरेषु च ॥

ORGANIC POISON.

There are sixteen different sources of organic poisons, viz eye-sight, respiration, teeth, nails, urine, stool, semen, saliva, mense blood, sting, a peculiarly ugly sound made by the rectum, rectum, bone, bile, bristles, and carcases (For details, see Chapter III, Kalpa-sthanam, Sushruta)

Of all the organic poisons, only poison of snakes is to be utilized for medicinal purposes The poison obtained from a youthfull black serpent (cobra) is preferable to that obtained from other serpents This poison also has a great healing property It gradu-

ally pacifies the three doshas It increases enormously the power of digestion, as soon as it is taken internally (of course, in the manner to be prescribed in vol IV and the subsequent volumes) In curing diseases due to the abnormal excess of the three doshas, it is the master of all the drugs Duly applied, it also acts like nectar, and is a reviver of the dead in cholera and in fever due to the three doshas.

सर्पविषस्य शोधनम् ।

प्रथमोविधिः ।

नागोद्भवं यथाप्राप्तं विषं गोमूत्रसंयुतम् ।
आतपे त्रिदिनं शुष्कं निहितं वीर्यधृग् भवेत् ॥

Purification of serpent poison

First process

Snake poison, in whatever way it may be obtained, is rendered powerful by mixing it with cow's urine and drying it up by sun's rays for three days.

द्वितीयोविधिः ।

सर्षपतैले संप्लुतं सर्पविषं विशुध्यति ॥

Second process.

Snake-poison is purified, if it is mixed with mustard oil

तृतीयोविधिः ।

पर्णतोयैर्मुनिवृक्षतुलसीपत्रयो रसैः ।
क्काथेनापि च कुष्ठस्य भावयेत् तत् त्रिधा त्रिधा ।
तदेव सर्वदा योज्यं नाविशुद्धं कदाचन ॥

Third process.

Snake poison is purified, if it is subjected to bhavana, for three times each, with the juice of tambula, juice of the leaves of vaka, juice of the tulasi leaves, and decoction of kustha

विशेषेण जंगमविष-जनितविकाराः ।

निद्रां तन्द्रां क्लमं दाहं सफेणं लोमहर्षणम् ।
शोथं चैवातिसारं च कुरुते जं वि म् ॥

Symptoms due to organic poison.

These are sleep, drowsiness, fatigue, inflammation, coming out of froth from the mouth, standing of hair on end, swelling, and diarrhœa.

सर्पदंशनप्रतिकारः ।*

जयपालस्य मज्जानं भावयेन् निम्बुकद्रवैः ।
एकविंशतिवारं तु ततो वर्त्तिं प्रकल्पयेत् ॥

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* परवर्त्तिखण्डे विषचिकित्साध्याये सविस्तरं वर्णितः ।

मनुष्य   या घृष्ट्वा ततो नेत्रे प्रदापयेत् ।
सर्पदंष्ट्राविषं जित्वा संजीवयति मानवम् ॥

Remedy of snake-bite.

Kernel of jayapala seed (previously purified) is to be subjected to bhavana for 21 times with lemon juice. It is then to be made into pills. Such a pill, rubbed with man's saliva, is to be put into the eyes, as a collyrium, of the man who has been bitten by a poisonous snake By this, the man will be able to overcome snake-poison *

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* The subject will be dealt with elaborately in a subsequent volume in the chapter on treatment of poison

अष्टमोऽध्यायः ।

अथोपविषाणि ।

स्नुह्यर्कलांगलीगुञ्जाहयारिविषमुष्टिकाः ।
कनकं जयपालश्च भल्लातकं च निर्विषा ॥
अतिविषाहिफेनं च जयाचोपविषाः स्मृताः ।
त्रयोदशकमेतत् तु विषवत् प्राणहारकम् ॥
विषैश्चोपविषैर्घृष्टश्छिन्नपक्षः शिवो भवेत् ।
मुखं च जायते तस्य धातूंश्च ग्रसते त्वरा ॥*

CHAPTER VII

UPABISHA (SEMI-POISONS)

The following are considered semi-poisons — Snuhi, arka, langali, gunja, karabira, visha-musti, dhattura, jayapala, bhallataka, nirvisha, ativisha, ahiphena, and jaya (bhanga) These thirteen are also killers of life, if taken in excess

Rubbed with poisons and the semi-poisons, mercury becomes deprived of its wings, and grows hungry It is then able to swallow and digest metals (without increasing in weight).†

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* प्रथमखण्डे ७५ पृष्ठं ।

† See page 76, Vol I

सामान्येनोपविषाणां शोधनम् ।

उपविषं विशुध्यति पञ्चगव्यैर्विभावितम् ।*
शोध्यं च दोलिकायन्त्रे क्षीरपूर्णेऽथ पात्रके ॥

Purification of semi-poisons in general

All the semi-poisons are purified, if subjected to bhavana with the pancha-gavya (milk, curd, clarified butter, urine, and dung of cow)

They are also purified by being boiled with milk by means of a Dola-Jantram

(१) स्नुही ।

सेहुण्डः सिंहतुण्डः स्याद्वज्री वज्रद्रुमोऽपि च ।
सुधा समस्तदुग्धा च स्नुक् तथा स्यात् स्नुही गुड़ा ॥
सेहुण्डो रेचनस्तीक्ष्णो दीपनो कटुको गुरुः ।
शूला ष्ठीलिकाध्मानकफगुल्मोदरानिलान् ॥
उन्मादमेहकुष्ठार्शःशोथमेदोऽश्मपाण्डुताः ।
व्रणशोथज्वरप्लीहविषदूषीविषं हरेत् ॥†
उष्णवीर्यं स्नुहीक्षीरं स्निग्धं च कटुकं लघु ।
गुल्मिनां कुष्ठिनां चापि तथैवोदररोगिणाम् ।
हितमेतद् विरेकार्थं ये चान्ये दीर्घरोगिणः ॥

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* क्षीरं दधि तथा चाज्यं मूत्रं गोमयमेव च । इति पञ्चगव्यम् ।

† दूषीविषमिति गरविषम् ।

(1) *Snuhi.*

Snuhi is laxative, strong, increaser of hunger, pungent, and heavy It cures colic, mucus, asthila (growth of a lump of flesh alongside the navel), swelling of the belly by wind, kapha, gulma, wind in the stomach, insanity, sperma torrhœa, leprosy, piles, dropsy, obesity, stone disease, anemia, boils, fever, enlargement of the spleen, poison, and artificial poison.

The milk of snuhi is warm in effect, soothing, pnngent, and light It is effective for the purpose of moving the bowels to those who suffer from gulma, leprosy, udara-roga, or some other chronic diseases.

स्नुहीक्षीरस्य शोधनम् ।

चिञ्चापत्ररसे कर्षे वस्त्रपूते पलद्वयम् ।
स्नुहीक्षीरं विभावयेत् रौद्रमध्ये प्र तः ।
द्रवे शुष्के समुत्तार्य सर्वरोगेषु योजयेत् ॥

Purification of the milk of snuhi.

One tola of the juice of the leaves of chincha, filtered by means of a piece of cloth, is to be mixed with eight tolas of the milk of arka. The liquid is then to be dried by the heat of the sun Thus dried, the milk of arka becomes purified, and may then be used, where necessary

(२) अर्कः।

श्वेतार्को गणरूपः स्यान् मन्दारो वसुकोऽपि च।
श्वेतपुष्पः सदापुष्पः स चालर्कः प्रतापसः॥
रक्तोऽपरोऽर्कनामा स्यादर्कपर्णो विकीरणः।
रक्तपुष्पः शुक्लफलस्तथास्फोतः प्रकीर्त्तितः॥
अर्कद्वयं सरं वातकुष्ठकण्डूविषव्रणान्।
निहन्ति प्लीहगुल्मार्शःश्लेष्मोदरशकृत्क्रिमीन्॥
अलर्ककुसुमं वृष्यं लघु दीपनपाचनम्।
अरोचकप्रसेकार्शःकासश्वासनिवारणम्॥
रक्तार्कपुष्पं मधुरं सतिक्तं
कुष्ठक्रिमिघ्नं कफनाशनं च।
अर्शोविषं हन्ति च रक्तपित्तं
संग्राहि गुल्मे श्वयथौ हितं तत्॥
क्षीरमर्कस्य तिक्तोष्णं स्निग्धं सलवणं लघु।
कुष्ठगुल्मोदरहरं श्रेष्ठमेतद् विरेचनम्॥

(2) *Arka*

Arka is of two kinds, viz white and red Both of them are laxative, and cure diseases due to vayu, leprosy, itches, poison, carbuncle, enlargement of the spleen, gulma, piles, phlegm, udara-roga, and worms in the stool

Flower of white arka is nutritious, light, digestive,

and curer of aversion to food, emission of phlegm, piles, cough, and asthma

Flower of red arka is sweet, bitter, and curer of leprosy, worms, phlegm, piles, poison, and racta-pitta It is increaser of appetite and power of digestion, and beneficial in gulma and dropsy

The milk of arka is bitter and warm, soothing, saltish and light It cures leprosy, gulma, udara-roga, and is a laxative.

(३) लांगली ।

हलिनी कलिहारी च शक्रपुष्पी च लांगली ।
विशल्याऽग्निशिखाऽनन्ता वह्निवक्त्रा च गर्भनुत् ॥
कलिहारी सरा कुष्ठशोफार्शोव्रणशूलजित् ।
सक्षारा श्लेष्मजित् तिक्ता कटुका तुवराऽपि च ॥
तीक्ष्णोष्णा क्रिमिहृल् लघ्वी पित्त गर्भपातिनी ॥

(3) *Langali*

Langali is laxative. It is efficacious in leprosy, dropsy, piles, boils, and colic It contains kshara (alkali) It cures cough and worms It is bitter, pungent, astringent, strong, warm, and light. It increases pitta and can cause abortion.

लांगल्या शोधनम् ।

लांगली शुद्धिमायाति दिनं गोमूत्रसंस्थिता ।

Purification of Langali

Langali is purified, if kept immersed for one day in cow's urine.

(४) गुञ्जा ।

श्वेता गुञ्जोच्चटा प्रोक्ता कृष्णला चापि सा स्मृता ।
रक्ता सा काकचिञ्ची स्यात् काकणन्ती च रक्ति ॥
कृष्णा काकतिक्ता च सांगुष्ठा च शिखण्डिनी ।
रुक्ता च काकजङ्घा च कर्णाचि काकतुण्डिका ॥
काका च काकिणी सौम्या काञ्ची कृष्णलक ।
काकजिञ्ञा शिखण्डी च कम्बोजी भिल्लभूषणा ॥
चूड़ामणिस्तथारुणा शीतपाकी च ताम्रि ा ।
र ा श्यामलचूड़ा च वन्या च कृष्णचूड़िका ।
कादनी काकपीलुः सा स्मृताङ्गारवल्लरी ॥
गुञ्जाद्वयं तु केश्यं स्याद् वातपित्तज्वरापहम् ।
मुखशोषभ्रमश्वासतृष्णामदविनाशनम् ॥
नेत्रामयहरं वृष्यं बल्यं कण्डूव्रणं हरेत् ।
क्रिमीन्द्र तकुष्ठानि र च धवलाऽपि च ॥
वामकं ताम्रिकामूलमुच्चटावीजकं तथा ।
उच्चटापत्रकं हितं वशीकार्ये विशेषतः ।
गुञ्जाद्वयस्य हि हितं शूले तथा विषे ॥

(५) करवीर ।

करवीरः श्वेतपुष्पः शतकुम्भोऽश्वमारकः ।
द्वितीयो रक्तपुष्पश्च चण्डातो लगुड़स्तथा ॥
तृतीयः पीतपुष्पश्च कृष्णपुष्पश्चतुर्थकः ।
पाटलकुसुमश्चान्यः पञ्चैते करवीरकाः ॥
करवीरगणस्तिक्तः कषायः कटुकश्च वै ।
क्षतलाघवकृन् नेत्रकोपकुष्ठव्रणापहः ॥
वीर्योष्णः क्रिमिकण्डुघ्नो भक्षितो विषवन् मतः ॥
पीतपुष्पस्तथा कृष्णपुष्पश्च श्वेतपुष्पवत् ।
हयानां मारकौ चैव कुष्ठादिषु हितप्रदौ ॥
पाटलकरवीरस्तु शिरोरुक्कफवातनुत् ॥
श्वेतस्य पूर्वदिग्वर्त्तिमूलमहिविषं जयेत् ॥

(5) *Karavira*

Karavira is of five different kinds, according to the colour of its flower viz. (a) white (b) red, (c) yellow, (d) black, and (e) violet

All of them are bitter, astringent, pungent, and are efficacious in ulcers, irritation of the eyes, leprosy, and boils They are warm in their effect on the system They cure worms and itches. They are to be used in the same way as poisons

The white, yellow, and black varieties of karavira are killers of horses The violet variety is a pacifier

of head-ache, and diseases due to kapha and vayu. The root of a white karavira proceeding east-ward is efficacious in snake-poison.

करवीरस्य शोधनम् ।

गोदुग्धे दोलिकास्वेदाद् धयाराति विशुध्यति ।

Purification of karavira

Karavira is purified, if boiled with milk by means of Dola-Jantram

(६) विषमुष्टिः ।

विषमुष्टिर्जलदश्च कुचिला दीर्घपत्रकः ।
कुपीलुः कुलकः काकतिन्दुकः काकपीलुकः ॥
कारस्करः कुपाकश्च कालपाकश्च रम्यकः ।
काकेन्दुर्विषतिन्दुश्च तथा मर्कटतिन्दुकः ॥
कुपीलु शीतलं तिक्तं वातलं मदकृल् लघु ।
परं व्यथाहरं ग्राहि * कफपित्तास्रनाशनम् ॥

(6) *Visha-musti* (*kuchila*).

Kuchila (nox-vomica) produces a cooling effect on the system. It is bitter, increaser of a slight vayu, intoxicating, light, highly remover of pain

* दीपनं पाचकं यत् स्यादुष्णत्वाद् द्रवशोषणम् । ग्राहि तच्च यथा शुण्ठी जीरकं गजपिप्पली ॥ दीपनमिति जठराग्नेर्दीपनं पाचनमिति आमपा ।

increaser of hunger, digestive, and destroyer of phlegm, pitta, blood, and (necessarily racta-pitta).

विषमुष्टेः शोधनम्।

प्रथमोविधिः।

दोलायन्त्रेन संस्विन्नः कांजिके प्रहरद्वयम्।
किञ्चिदाज्येन भृष्टश्च विषमुष्टिर्विशुध्यति॥

Purification of visha-musti.

First process

Visha-musti (kuchila) is purified, if is is boiled with kanji for six hours by means of a Dola-Jantram, and then fried well with a little of clarified butter (till it is reduced to charcoal).

द्वितीयोविधिः।

स्विन्नो गोमयवारिभ्यां दोलायां पयसा ततः।
घृतेनातः परं भृष्टो विषतिन्दुर्विशुध्यति॥

Second process.

Visha-musti is purified, if it is boiled by means of a Dola-Jantram with cowdung mixed with water, then with milk, and then fried with clarified butter (till it is reduced to char-coal).

(७) धुस्तूरः।

धुस्तूरो देवता धूर्त्त उन्मत्तः कनकाह्वयः।
धत्तूरः कितवस्तूरी महामोही शिवप्रियः॥

मातुलो मदनश्चास्य फलं मातुलपुत्रकः ।
धुस्तूरो मदवर्णाग्नि ।तकृज्ज्वरकुष्ठनुत् ॥
कषायो मधुरस्तिक्तो यूकालिक्षाविनाशकः ।
उष्णो गुरुर्व्रणश्लेष्मकण्डूकृमिविषापहः ॥

(7) *Dhustura* (*strammonium*)

Dhattura increases intoxication, complexion, hunger, and vayu. It cures fever and leprosy. It is astringent, sweet, bitter, warm, and heavy. It destroys lice, boils, phlegm, itches, worms, and poisons.

धुस्तूरस्य शो ।

धूर्त्तबीजं चतुर्यामं गोमूत्रे निहितं पुनः ।
कण्डितं निस्तुषं कृत्वा योगेषु विनियोजयेत् ॥

Purification of dhattura.

Seeds of dhattura are purified, if they are kept immersed, for 12 hours, in cow's urine, and then deprived of their husks, by being thrashed with an iron rod in an iron mortar

(८) जयपालः ।

जैपालो जयपालश्च चक्रदन्ती विरेचनः ।
मलद्रावी म्भीबीजं कुम्भिनीबीजमेव च ॥
घण्टाबीजं च घण्टिणीबीजं निकुम्भबी म् ।
रेचनबीजसंज्ञोऽयं शोधनबीज च ॥

जयपालो गुरुः स्निग्धो रेची पित्तकफापहः ।
अशुद्धोऽयमसून् हन्ति शुद्धोऽसौ सेव्यतेऽल्पतः ॥

(8) *Jayapala* (*croton seeds*).

Jayapala is heavy, remover of coarseness of the body, highly purgative, and pacifier of pittam and kapha It takes away life, if taken unpurified and in excessive quantity It should be taken purified, and in doses not exceeding one fourth of a racti a day

जयपालस्य शोधनम् ।

प्रथमो विधिः ।

पञ्चगव्येषु संशोध्य दूरीकार्यास्तु जिह्विकाः ।
ततोऽम्लवर्गे दशधा क्षारवर्गे त्रिधा पुनः ॥
कुमारीकोद्रवक्षारजले चैव विशोधयेत् ।
शुद्ध एवं हि जैपालो वान्तिदाहविवर्जितः ॥

Purification of Jayapala

First process

Jayapala seeds are purified, in the following way —They are first of all to be boiled with the pancha-gavya (see page 331) Scale-like tissues, which are found inside the seeds, are then to be removed. The seeds are then to be treated (i.e boiled or subjected to bhavana) with the amla-varga (vegetable acids) for ten times, with the ksharas for three times, with the juice of kanya for once only,

and with the solution of a kshara prepared from kodrava (a kind of paddy), for once only. Thus purified, jayapala seeds do not cause vomitting or inflammation.

द्वितीयो विधिः ।

जैपालं रहितं त्वगंकुर * रसैश्चाद्भिर्मले माहिषे
निक्षिप्तं त्र्यहमुष्णतोयविमलं खल्वे सवस्त्रार्दितम् ।
लिप्तं नूतनखर्परेषु विगतस्नेहं रजःसंनिभं
निम्बूकाम्बुविभावितं च बहुशः शुद्धं गुणा ढ्यं भवेत् ॥

Second process

Jayapala seeds are first of all to be deprived of their skins, internal scales, and of their juices by being washed off with water They are then to be kept concealed in the dung of buffalo for three days They are next to be washed off with hot water and cleansed Then they are to be rubbed with a piece of rag (which is meant to soak the oil) in a mortar Next, they are to plaster the surface of a new earthen basin (which is to soak the rest of the oil) The jaypala is thus deprived of oil, and appear like dust. It is then to be subjected to bhavana for several times with lemon-juice Thus purified, jayapala become excellent in quality.

* अंकुरमिति जयपालबीजजिह्विका ।

तृतीयो विधिः ।

वस्त्रे बद्ध्वा तु जैपालं गोमयस्योदके न्यसेत् ।
पाचयेद् याममात्रं तु ततोऽयं शुद्धतां व्रजेत् ॥

Third process

Jayapala seeds (deprived of their skins and scales) are purified, if they are boiled for three hours with the juice of buffalo stool.

चतुर्थो विधिः ।

जैपालं निस्तुषं कृत्वा दुग्धे दोलायुते पचेत् ।
अन्तर्जिह्वां परित्यज्य युंज्याच्च रसकर्मणि ॥

Fourth process

Jayapala seeds are purified, if they are deprived of their skins and internal scales, and then boiled with milk by means of a Dola-Jantram

(६) भल्लातकम् ।

भल्लातकं त्रिषु * प्रोक्तमरुस्कोऽरुष्करोऽग्निकः ।
तथैवाग्निमुखी भल्ली वीरवृक्षश्च शोफहृत् ॥
वीरतर्व..लाह्वयो व्रणहृद्भूतनाशकः ।
अन्तःसत्व शैलबीजो निर्दहनस्तथा ॥
क्रिमिघ्नस्तपनश्चैव वातारिः स्फोटबीजकः ।
महातीक्ष्णः पृथग्बीजो बीजवृक्षो धनुस्तरुः ॥

* त्रिषु इति त्रिषु लिङ्गेषु ।

भल्लातकफलं पक्वं स्वादुपाकरसं लघु ।
कषायं पाचनं स्निग्धं तीक्ष्णोष्णं छेदि भेदनम् ॥
मेध्यं वह्निकरं हन्ति कफवातव्रणोदरम् ।
कुष्ठार्शोग्रहणीगुल्मशोफानाहज्वरक्रिमीन् ॥
वृन्तमारुष्करं स्वादु पित्तघ्नं केश्यमग्निकृत् ।
मज्जा भल्लातकस्य हि कषायो मधुरो लघुः ।
वृष्यश्चोष्णस्तथा शुक्रप्रदश्च कफवातहा ॥
हन्ति सर्वोदरानाहकुष्ठार्शोग्रहणीगदान् ।
तथा गुल्मज्वरश्वित्रवह्निमान्द्यक्रिमिव्रणान् ॥

(9) *Bhallataka.*

Ripe fruits of bhallataka are sweet when digested, light, astringent, digestive, soothing, acrid, warm, reducer of fat, purgative, increaser of retentive faculties, and increaser of hunger. They destroy phlegm, vayu, sores, udara-roga, leprosy, piles, chronic diarrhoea, gulma, dropsy, intestinal obstruction, fever, and worms.

Stems of bhallataka fruits are sweet, pacifier of pittam, beneficial to hair, and increaser of power of digestion

Oil or marrow of bhallataka (which are generally used in medicines) are astringent, sweet, light, nutritive, warm, increaser of semen, pacifier of vayu and kapha. It destroys all sorts of udara-roga, intestinal obstruction, leprosy, piles, chronic diarro-

hoea, gulma, fever, leucoderma, loss of digestive power, worms and carbuncles

भल्लातकमज्जनिष्कर्षणम् ।

भ तकफलं पक्कं समानीय क्षिपेज् जले ।
मज्जति यदि तत् तत्र तदैव तन्नियोजयेत् ॥
इष्टकाचूर्णसञ्चयैर्घर्षणाद् विमलं भवेत् ।
शस्यान् मुक्तं फलं तच्च बीजरूपं ग्रहीष्यति ॥
ईदृशान्यग्निबीजानि खण्डितानि ततः परम् ।
लौहपात्रे पचेद् यत्नाद् वारिणा हि बहुत्तणम् ॥
मज्जा भल्लातकस्येत्थं निर्गच्छेदग्नियोगतः ।
सन्तरेत् कृष्णवर्णश्च वारिपृष्ठे शनैः शनैः ॥
समुद्धरेत् प्रयत्नात् तं यावदसौ बहिर्भवेत् ।
निःशेषमागते तस्मिन् हुताशनं निवापयेत् ॥
अथवा पातयेत् सत्त्वं भल्लातकफलस्य वै ।
पातालयन्त्रयोगेन मज्जरूपं यथाविधि ॥*

Extraction of the essence (oil) of bhallataka fruits

For the purpose of extraction of oil or essence of bhallataka fruits, only those which are ripe and sink in water are to be selected. These fruits are first of all to be denuded of the kernel surrounding

* द्वितीयखण्डे १२७ पृष्ठे पादटीका द्रष्टव्या ।

the seeds, by means of being rubbed with powdered bricks. The seeds are then to be cut into pieces and boiled with water in an iron cauldron. Thus boiled, the seeds will let out their essence of black colour, which will collect gradually upon the surface of the water The essence or oil, thus extracted, will have to be taken up carefully The heating will have to be discontinued when all the essence has been taken up.

The essence of the bhallataka seeds, cut into pieces, may also be extracted by means of the Patala Jantram (see foot-note, page 127, Vol II)

(१०) निर्विषाः ।*

निर्विषा मुस्तकाकारा सा हि तृणं विषापहम् ।
क्षेत्रालयादिस्थले सैव जायते हि विशेषतः ॥
अविषाऽपविषा सा तु निर्विषी विषहाऽपि च ।
विषाभावा विषहन्त्री निर्विषा विषवैरिणी ॥
निर्विषा कटुशीतला व्रणानां रोपिका तथा ।
कफवातविषास्राणां नितरां शान्तिदायिका ॥
शिरोऽव्यथां निहन्त्याशु ललाटस्पर्शनात् त्रिधा ।
शङ्खात् सव्येतरस्माच्च सव्यशङ्खांतकं हि सा ॥†

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* श्यामकाँकूला इति भाषा ।

† शङ्खौ इति भ्रुवोरन्तोपरि कर्णललाटयोर्मध्ये अस्थिमर्म सार्द्धाङ्गुले सद्योमारके चेदाहते ।

(10) *Nirvisa.*

It is a kind of grass of the appearance of mustaka. It generally grows in such places as land-marka of agricultural fields

This grass is pungent, cool, and healer of ulcers It pacifies kapha, vayu, impurities of the blood, and various kinds of poison It cures head-ache immediately, if it is made to touch the skin of the fore-head by being drawn across it for three times beginning with the side of the left ear to that of the right ear

(११) अतिविषा ।

विषा त्वतिविषा विश्वा शृङ्गी प्रतिविषारुणा ।
शुक्लकन्दा चोपविषा भङ्गुरा घुणवल्लभा ॥
विषा सोष्णा कटुस्तिक्ता पाचनी दीपनी हरेत् ।
कफपित्तातिसारामविषकासवमिक्रिमीन् ॥

(11) *Ativisha.*

Ativisha is warm, pungent, bitter, digestive, and increaser of hunger It cures kapha, pittam, diarrhoea, mucus, poison, cough, vomitting, and worms.

(१२) अहिफेनम् ।

अहिगुल्मोद्भवं फलं खसफलं च कथ्यते ।
विज्ञायतेऽहिफेनकं निर्यासस्तत्फलस्य हि ॥

अहिफेनं सुतिक्तं च मदकृद् निद्राकारकम् ।
वेदनाक्षेपनाशनं स्पर्शशक्तिविनाशकम् ॥
कफश्वासनिवर्हणं ग्राहि पित्तानिलप्रदम् ।
धातूनां शोषणं रुक्षं दाहमेहादिवर्द्धनम् ॥
अतिसारे ग्रहण्यां च हितं स्वल्पप्रमाणतः ।
बहुदिनं न सेव्यं तत् स्वास्थ्यायुःसुखमिच्छता ॥

अहिफेनस्य भेदाः ।

अहिफेनं चतुर्विधं श्वेतं पीतं तथाऽसितम् ।
कर्वूरं च विजानीयाच्छ्वेतमग्निविवर्द्धनम् ॥
असितं जीवनं हन्ति पीतं स्तम्भकरं परम् ।
कर्वूरमहिफेनं हि मलमूत्रादिरेचनम् ॥

(12) *Opium.*

Opium is bitter, intoxicating, inducer of sleep, remover of pain and spasm, destroyer of sensibility, kapha, and asthma, digestive, increaser of hunger, increaser of vayu and pittam, destroyer of the dhatus, depriving the body of its oily substance, and causing inflammation and spermatorrhoea It is efficacious in diarrhoea, acute as well as chronic, if taken in small quantities No one who desires to live a healthy, happy, and long life should take opium for a long time.

अहिफेनस्य शो ।

शृङ्गवेररसैर्भाव्यमहिफेनं त्रिसप्तशः ।
अतोऽयं शुद्धिमायाति योज्यं ततो यथाविधि ॥

Purification of Opium

Opium is purfied, if subjected to bhavana with ginger juice for twenty one times

(१३) जया ।

तुलानी जया भङ्गा मादिनी विजया तथा ।
चप वीरपत्रा च सिद्धिरिन्द्राशनं च सा ।
अजेयाऽऽनन्दसंज्ञा च मादयित्री च हर्षिणी ॥
भङ्गा कफहरी तिक्ता * ग्राहिणी कषाया कटुः ।
तीक्ष्णोष्णा पित्तला लघुर्वाग्मेह † मदवर्द्धिनी ॥
मदनोद्दीपनी निद्राजननी हर्षदायिनी ।
धनुःस्तम्भं जलत्रासं विसूचीं च मदात्ययम् ।
प्रवृत्तिं रजसो बह्वीं हन्त्यपत्यप्रसूतिकृत् ॥

(13) *Jaya* (*bhang—Cannabis sativa*)

Bhanga is a destroyer of kapha. It is bitter, increaser of hunger and power of digestion, light, strong, warm, increaser of pittam, spermatorrhoea,

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* मतान्तरे कटुतिक्तकषाया ।

† मेहस्थले मेधेति पाठान्तरम् ।

intoxication, power of speech, sexual desire, sleep, and laugh It ıs efficacıous in tıtanus, hydrophobœa, cholera, and after-effects of alchohol and hæmorrhage after child-birth.

: शो ्।

प्रथमोविधिः।

वव्बूलत्वक्कषायेण भङ्गां संस्वेद्य शोषयेत्।
गोदुग्धैर्भावनां दत्वा शुष्कां सर्वत्र योजयेत्॥

Purıfıcatıon of jaya

First process.

Jaya ıs purıfied, ıf ıt is boıled wıth the decoction of the bark of babbula, then drıed, and again subjected to bhavana wıth cow's mılk

द्वितीयोविधिः।

गोदुग्धे स्वेदिता भङ्गा शोषिता घृतभर्जिता।
शुध्यति युज्यते तदा योगेषु सा यथाविधि॥

Second process.

Jaya ıs purıfied, if ıt ıs boıled wıth milk, then drıed, and frıed wıth clarıfied buttter.

गञ्जा।

पुष्पं जयाविशेषस्य गञ्जेति कथ्यते बुधैः।
धिक्येन जयादोषान् गुणांश्चापि बिभर्त्ति सा।
कदाचन न सेव्या सा जीवितसुखमिच्छता॥

निर्यासः स्वरसोऽपि च गञ्जाया हि विभीषणः।
गञ्जारसः * स कथ्यते पिवेत् तं न कदाचन॥

Ganja (cannabis Indica)

Ganja is a flower of a kind of jaya It possesses, in excess, all the merits and demerits of jaya. One who wishes to live a happy life should not take (drink or smoke) ganja

The exudation, juice, or tincture of ganja is commonly called "charas". It is horribly injurious and should be avoided altogether

उपविषविकाराणां शान्तिः।

अहिफेनवि शान्तिः।

(१)

बृहत् चुद्राम्बुनः पलमात्रं दुग्धेन सेवनात्।
अहिफेनविषं शीघ्रं निराकृतं भवेद् ध्रुवम्॥

Remedy of Semi-poisons

Opium.

(1)

Poison of opium is speedily counteracted, if four tolas of the juice of the larger variety of small ambu (karaballi ? or thorny tanduliyaka ?) is taken with milk.

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* गञ्जारस —चरस् इति भाषा।

(२)

उग्रसिन्धुस्तथा कृष्णा मज्जा मादनकी तथा ।
संपिष्टास्तप्तनीरेण पीताश्च नागफेनजित् ॥

(2)

Poison of opium is destroyed, if saindhava (rock-salt), pippali, and kernel of madana fruit are pestled together and drunk with hot water.

(३)

टंकनं नीलतुत्थं च घृतयुक्तं च दापयेत् ।
तद्वान्तिं कारयेत् सद्यो नागफेनविषं जयेत् ॥

(3)

Tankana and tutthaka are to be taken with clarified butter This causes vomitting and thereby removes opium poison from the system

धुस्तूरबीजस्य शान्तिः ।

(१)

वृन्ताकफलबीजस्य रसो हि पलमात्रकः ।
भक्षणाद् भुक्तधुस्तूरविषं हन्ति सुनिश्चितम् ॥

Dhattura Poison.

(1)

Poison of dhustura is nullified by drinking four tolas of the juice of seeds of egg fruits (brinjals).

(२)

पाॅसास्थियुतं पुष्पं जलेनोत् थ्य पानतः।
धत्तूर विषं हन्ति तथा णसेवनम् ॥

(2)

Poison of dhatura is destroyed by drinking the decoction of flowers of cotton combined with their stones Drinking of saline water also serves the same purpose.

(३)

गोदुग्धं प्रस्थमेकं च शर्करायाः पलद्वयम्।
तत्पानेन विषं याति धस्तूर न संशयः॥

(3)

One prastha (64 tolas) of cow's milk and eight tolas of sugar, drunk together, counter-act the poison of dhastura

भल्लातकविकारस्य शान्तिः।

(१)

स्वरसो मेघनादस्य नवनीतेन संयुतः।
भल्लातकभवं शोफं हन्ति लेपेन तत्क्षणात् ॥

Remedy of Bhallataka poison.

(1)

Swelling, due to bhallataka poison, is remedied by the external application of a plaster made of butter and juice of meghanada.

(२)

दारुसर्षपमुस्तानि नवनीतेन लेपयेत् ।
भल्लातकविकारोऽयं सद्यो गच्छति निश्चितम् ॥

(2)

Troubles, due to bhallataka, are removed by the external application of devadaru, sarshapa (mustard seeds), musta, and butter, pestled together.

(३)

नवनीतं तिलं दुग्धं पिष्टं खण्डयुतं तथा ।
लेपनात् शान्तिमायाति भल्लातकविषव्यथा ॥

(3)

Swelling and irritation, due to bhallataka poison, is pacified by the external application of butter, sesamus (tila), milk, and khanda gurh (molasses purified and condensed into a tawny-coloured lump)

जयाविषस्य शान्तिः ।

(१)

शुण्ठी गोदधियुक्ता च पीता भंगाविकारनुत् ।

Remedy of bhanga poison.

(1)

Troubles due to bhanga poison are remedied by drinking shunthi, mixed with cow's curd.

(२)

पनसपत्रनिर्यासेण जयाविषं प्रशाम्यति ।

(2)

Troubles due to bhang poison are remedied by the juice of the leaves of panasa tree, taken internally.

गुञ्जाविषस्य शान्तिः ।

(१)

मेघनादरसः पेयः शर्करासंयुतस्ततः ।
क्षीरं पेयं यथासाध्यमुच्चटाविषपीड़ितैः ॥

Remedy of gunja poison

(1)

Troubles due to gunja poison are remedied by drinking the juice of meghanada, mixed with sugar, and then drinking milk.

(२)

मधुखर्जुरमृद्विका वृक्षाम्लं चाम्लदाड़िमौ ।
परुषैश्चामलैर्युक्ताः सद्योगुञ्जाविकारनुत् ॥

(2)

The following removes speedily the troubles due to gunja poison —honey, dates, grapes, tamarind, sour pomegranates, parusha fruits, and amalaki, all rubbed together and taken internally

करवीरविषशान्तिः ।

द[illegible] वा [illegible] वाऽपि माहिषेण [illegible] रि [illegible] ।
अथवार्कत्वचा पीता करवीरवि[illegible]प[illegible] ॥

Remedy of karabira poison.

Sugar-candy, mixed with buffalo's milk, or curd, or bark of arka plant, taken internally, removes troubles due to karabira poison

स्नुहीविषविकारस्य शान्तिः ।

(१)

शीतवारियुता पीता सिता वज्रीविषाप ।
शीतवायुस्ततः कार्य्यः शीतच्छायां च संभजेत् ।
चिञ्चापत्रं जले पिष्ट्वा पिबेद् विषोपशान्तये ॥

Remedy of snuhi poison

(1)

Troubles due to snuhi poison are removed by drinking cold water, mixed with sugar-candy, and by being treated with cooling fan and resorting to a cool and shady place. Tamarind leaves, pestled with water, should also be taken in such cases.

(२)

हेमगैरिकयुग्वारि स्नुह्यर्कजविकारनुत् ।

(2)

Water, mixed with red ochre (see page 146, vol II), removes troubles due to the poisons of snuhi and arka.

अर्कविषविकारस्य शान्तिः ।

(स्नुहीविषविकारशान्तये द्वितीयोविधिर्द्रष्टव्यः ।)

Remedy of arka poison.

(See Remedy of snuhi poison, No. 2.)

जयपालविकारस्य शान्तिः ।

धन्याकं सितया युक्तं पीतं दध्ना समन्वितम् ।
जयपालभवं दोषं दूरीकरोति निश्चितम् ॥

Remedy of jayapala poison.

Dhanya (coriander seeds), pestled with curd and sugar, removes troubles due to croton seeds

अथ शोधनीयानां कतिपयद्रव्यानां शोधनविधयः ।

वृद्धदारस्य बीजानि रौद्रमध्ये विशोधयेत् ।
स्वल्पसैन्धवयुक्तेन द्रवेण मिलितानि वै ॥
मयूरस्य कषायेण तानि वा परिशोधयेत् ।
अथवा दोलिकायन्त्रे दुग्धेन सह पाचनात् ॥

Purification of some materials requiring purification.

The seeds of vriddha-dara are purified, if dried in the sun, after having been saturated with a solution made of water and a little of rock-salt. They may also be purified, by being boiled with (or subjected to bhavana with) the decoction of apamarga; or by being boiled with milk by means of Dola Jantram.

मार्गकषायेण निम्बबीजं * विशोधयेत्।
शिग्रुकार्पासबीजानि अपामार्गस्य बीजकम्।
घर्मेण शोधयेत् सर्वमेतद् द्रव्यान्तरं विना॥
कषायेणेन्द्रवारुण्या राजवृक्षस्य बीजकम्।
मूलक्वाथैः कुमार्य्याश्च जैपालबीजशोधनम्॥
समूलोत्तरवारुण्या बीजं शुध्यति कानकम्॥

Seeds of nimba (nimboo, according to another text) are purified by the decoction of apamarga. Seeds of shigru, karpasa (cotton), and apamarga are purified only by being dried in the sun. Seeds of aragbadha are purified by the decoction of indrabaruni. Seeds of jayapala (croton) by the decoction of the root of kanya, and the seeds of dhustura by the decoction of uttarabaruni including its roots

तिक्ता कोषातकी दन्ती पटोली चेन्द्रवारुणी।
कटुतुम्बी देवदाली काकतुण्डी च शुध्यति।
धात्रीफलरसेनैवं महाकालस्य शोधनम्॥
करञ्जयुग्मयोर्बीजं भृङ्गराजेन शोधयेत्॥

Seeds of katuki, koshataki, danti, patola, indrabaruni, katu-tumbi, deva-dali, white gunja, and mahakala—all of these are purified by the juice of amalaki. Seeds of karanja and karanji (visa-karanja) are purified by the juice of bhringa raja.

* निम्बुबीजमिति पाठान्तरम्।

गुञ्जादिसर्वबीजानां नरमूत्रैः पटुं विना ।
नारिकेलाम्बुना शोध्यं विल्वं भल्लातकं च वै ॥

Gunja and the other seeds are purified by human urine, not mixed with salt. Seeds of vilba and bhallataka are purified by cocoa-nut water.

गुग्गुलुशोधनम् ।

(१)

क्वाथे हि दशमूलस्य चोष्णे प्रक्षिप्य गुग्गुलुम् ।
आलो   वस्त्रपूतं तं चण्डातपविशोषितम् ।
घृताक्तं पिण्डितं कुर्याद् यत्नात् तस्य विशुद्धये ॥

(२)

अमृतायाः   येण शोधयेद् वापि गुग्गुलुम् ।
दोलायन्त्रे यथाविधि शोषयेदातपे   : ॥

(३)

दुग्धे वा त्रिफलाक्वाथे दो   यन्त्रविपाचितः ।
वाससा गालितो ग्राह्यः सर्वकर्मसु गुग्गुलुः ॥

Purification of Guggulu.

Guggulu is purified, if it is dissolved with a decoction of dasha-mula, and then filtered through a piece of cloth, and dried in the intense heat of the sun

(2)

Guggulu my also be purified, if boiled with the decoction of guruchi by Dola Jantram, and then dried in the sun

(3)

Guggulu may also be purified by being boiled with milk or decoction of triphala by the Dola Jantram.

जलौकाशोधनम् ।

चिरंतनीं जलौकां हि ताम्रपात्रे सुरक्षयेत् ।
चतुर्माषं निशाचूर्णं जलाष्टकपले क्षिपेत् ॥
तस्मिन् क्षिपेत् जलौकां तां स्वयं लालां परित्यजेत् ।
त्यक्तलाला जलौका हि प्रयोज्या रक्तमोक्षणे ॥
कपिला रोमपृष्ठा च रक्तरेखा च दुर्बला ।
वर्जनीया विशेषेण भिषजा कीर्त्तिमिच्छता ॥

Purification of Leeches

A leech, which is sufficiently old, is to be kept in a copper pot. It is to be immersed in 32 tolas of water, mixed with one fourth of a tola of powdered haridra (turmeric) Thus treated, it will give out its saliva Purified in this way, the leech may be applied for the purpose of blood-sucking

A leech of the following description is to be avoided —

(1) A leech which has got furs on its body, or (2) one which is of tawny colour; or (3) one which has got red lines on its body, or (4) one which is weak.

नवमोऽध्यायः ।

अथ तैलपातनम् ।

सामान्येन सर्वबीजानां तैलपातनविधिः ।

(१)

अपक्व * भानुपत्राणां रसमादाय भावयेत् ।
यत्किञ्चिद् बीजचूर्णं च ज्ञातं वा न ज्ञातं च वा ॥
बद्धं ततस्तच्च स्थापयेत् स्थालिकोपरि ।
तपे मुच्यते तैलमन्यथाऽसाध्यमेव च ॥

CHAPTER IX

EXTRACTION OF OIL FROM SEEDS OF ANY KIND

(1)

Any kind of seed, known or unknown, is to be powdered very finely, and subjected to bhavana with the juice of green † leaves of arka The seed is then to be kept, tightly confined in a piece of cloth, and placed upon a pot in the sun Oil will come out of the bundle containing the seed

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* इति पाठान्तरम् ।

† Ripe, according to another text

(२)

पर्याप्तमात्रबीजानां तैलमाशु विपात्यते ।
तैलकारस्य घूर्णिना यथा सर्वैर्विदृश्यते ॥

(2)

Oil can be extracted from oil-seeds, of sufficient quantity, by means of the well-known machine used by oilmen

(३)

यत्किञ्चिद्बीजचूर्णाणि वस्त्रपूतानि कारयेत् ।
समूलोत्तरवारुणीक्काथेन तानि मर्दयेत् ॥
तेनालिप्तं कांस्यपात्रं धारयेदातपे खरे ।
सुतप्तं वस्त्रपूतं च पातितं तैलमाहरेत् ॥

(3)

Seeds of any kind are to be powdered very fine, and sifted through a piece of cloth They are then to be rubbed with the decoction of uttara-baruni with its roots, and made into a paste with which is to be smeared the internal surface of a bell-metal pot, kept in the intense heat of the sun. Thus heated, the paste will yield oil which is to be filtered by means of a piece of cloth

(४)

सर्वबीजास्थिमांसानां शुष्काणां पेषणान्मुहुः ।
पातयेद् यत्नतस्तैलं यन्त्रेन पातालाख्यके ⊛ ॥

⊛ द्वितीयखण्डे १२७ पृष्ठे पादटीका द्रष्टव्या ।

(4)

Oil can be extracted by means of the Patala Jantram from all sorts of seeds, bones, and flesh, dried and pounded over and over again *

(५)

अंकोल्लबीजसंभूतं चूर्णं संमर्द्य काञ्जिकैः ।
एकरात्रे पितं तत् तु पिण्डीकृत्य ततः परम् ॥
स्वेदयेन् कन्दुके यन्त्रे घटिकाद्वितयं ततः ।
तां च पिण्डीं दृढ़े वस्त्रे बद्ध्वा निस्पीड्य काष्ठतः ॥
अधःपात्रस्थितं तैलं समाहृत्य नियोजयेत् ।
एवं कन्दुकयन्त्रेन † सर्वतैलान्युपाहरेत् ॥

(5)

Seeds of ankolla, pestled with kanji, are to be kept one night, and then made into a lump which is to be heated by means of the kanduka Jantram or Swedani Jantram (see page 251, vol I), for two hours It is then to be confined tightly in a piece of tough cloth, and pressed by means of a strong piece of wood resulting in the extraction of oil.

Oil can thus be extracted from all sorts of seed.

* See foot note page 127, vol II.

† प्रथमखण्डे २५१ पृष्ठं द्रष्टव्यम् ।

विशेषेण बीजानां तैलपातनविधिः ।

मूलान्युत्तरवारुण्या जर्जरीकृत्य काञ्जिके ।
क्षिपेदङ्कोल्लबीजानां पेषितं तत्र यत्नतः ॥
तेनालिप्तं कांस्यपात्रं धारयेदातपे खरे ।
सुतप्तं वस्त्रपूतं च स्त्यानं तैलं समाहरेत् ॥

Extraction of oil from seeds, in particular.

Root of uttarabaruni is to be pestled with kanji with which is to be mixed seeds of ankolla, pestled very fine. The whole thing is to be mixed well. The inner surface of a bell-metal pot is to be smeared with this paste and kept in the sun The thick oil, which will come out of the paste, is to be filtered by means of a fine piece of cloth,

संपेष्योत्तरवारुण्याः पेटकार्या दलान्यथ ।
काञ्जिकेन ततस्तेन कल्केन परिमर्दयेत् ॥
रजश्चाङ्कोल्लबीजानां तद् बद्ध्वा विरलाम्बरे ।
प्रविलम्ब्यातपे तीव्रे तस्याधश्चषकं न्यसेत् ।
तस्मिन् निपतितं तैलमादेयं श्वित्रनाशनम् ॥

Leaves of uttara-baruni and petakari are to be rubbed with kanji and made into a paste Powdered seeds of ankolla are to be rubbed with this paste, which is then to be confined in a piece of thin cloth and kept hanging in the sun over a pot meant to con-

tain the oil which is to fall, drop by drop, upon it. This oil cures Leucoderma

यथा धूस्तुरजं तैलं क्वाथाद् घर्मे समुद्धरेत् ।
तथा स तै नि ह्यान्यौषधान्तरैः ॥
अङ्कोटस्यापि तैलं स्यात् काकतुण्ड्या समूलया ।
वाकुच्या देवदाल्याश्च कर्कोटीमूलतो भवेत् ॥
अपामार्गकषायेण तैलं स्याद् विषतिन्दुजम् ।
मूलक्वाथैः कु र्यास्तु तैलं जैपालजं भवेत् ॥

Oil can be extracted from the ankota seeds by being rubbed with the decoction of gunja plant with its roots, in the same way as from the seeds of dhustura, rubbed with the decoction of uttara-burani. Oil can similarly be extracted from the seeds of bakuchi and devadali, separately, by being rubbed with the decoction of karkoti, from the seeds of kuchila, being rubbed with the decoction of apamarga, from seeds of jayapala (croton), being rubbed with the decoction of the roots of kanya.

रक्तापामार्गसंक्वाथैर्वाकुचीतैलमाहरेत् ।
क्वाथेन चेन्द्रवारुण्या मारग्वधस्य च ॥

In the same way, oil can be extracted from bakuchi seeds, rubbed with the decoction of red apamarga, and from aragbadha seeds, rubbed with the decoction of indrabaruni ;

बीजानि कटुतुम्ब्याश्च गोमयेन वि गोड़येत् ।
शुष्कं धान्यतुषैः सार्द्धं कुट्टयेत् तदुदूखले ॥
निस्तुषं तं विचूर्ण्याऽथ भृङ्गराजरसैः सह ।
मर्दयित्वातपे तैलं गृह्णीयात् पीड़ने ततः ॥

Seeds of katu-tumbi are to be rolled with cow-dung When dried, they are to be husked along with dry husks of paddy in a mortar. The seeds are next to be separated from the husks, and pestled with the juice of bhringa-raja The paste, thus prepared, is next to be heated in the sun, and pressed, confined in a piece ef cloth, so that oil comes out of it.

कृष्णायाः काकतुण्ड्याश्च बीजानि परिचूर्णयेत् ।
कान्तपाषाणचूर्णेन तच्चूर्णं येत् ततः ॥
धान्यराशौ ततः स्थाप्यमुद्धृते तैलमाहरेत् ।
अपामार्गस्य सं थैरातपे हि यथाविधि ॥

Seeds of black as well as of white gunjas are to be powdered This powder is to be commingled with powdered load stone, the whole thing being kept inside a heap of paddy for sometime. It is then to be rubbed with the decoction of apamarga, and oil to be extracted from it in the afore-said way.

धात्रीफलरसैर्भाव्यं चूर्णं पाषाणबीजजम् ।
दिनैकं च ततो यत्नात् तैलं ग्राह्यं च घूर्णितः ॥

Powdered seeds of pashana (?) are to be subjected to bhavana with the juice of amalaki for one day, and then oil is to be extracted from them by means of the ghurni machine

गु   ञ्चूर्णानि नरमूत्रेण भावयेत् ।
रं ततो घर्मे लेपयेत् कांस्यभाजनम् ।
उद्धृत्य धारयेद्ध घर्मे तैलं पतति पीड़नात् ॥

Powdered gunja as well as karanja seeds are to be subjected to bhavana with human urine for seven times The inner surface of a bell-metal pot is next to be smeared with the paste, thus prepared, and heated for sometime in the sun The paste is next to be confined in a piece of cloth, heated in the sun, and pressed so that oil comes out of it.

वर्षमानारणालेन पिष्ट्वा चूर्णं विभावयेत् ।
ज्योतिष्मत्युत्थबीजानामातपे तैलमाहरेत् ॥

Powdered seeds of jyotismati are to be pestled with aranala of one year's standing, and subjected to bhavana with the same liquid, The paste is next to be heated in the sun, and oil extracted, as before.

पुत्रंजीवस्य बी नां चूर्णमगस्तिबीजजम् ।
तवत् प्रकर्त्तव्यं पात्यं तैलं पृथक् पृथक् ॥

नारिकेलाम्बुना भाव्यं बिल्वबीजस्य चूर्णकम्।
दिनैकं तैलयन्त्रेण तै [illegible] योजयेत् ॥

Powdered seeds of putranjiba as well as of agε are to be made into a lump of the shape of amratε or hog plum (by being rubbed with water or dec tion of uttara-baruni), and then pressed, as before, extraction of oil Powdered seeds of vilba are to subjected to bhavana with cocoanut water for c day, before oil is extracted from them by means the oil-machine (ghurni)

निस्तुषं कोलबीजानां मुखं किञ्चिद् विघर्षयेत्।
लेपयेत् कांस्यपात्रे तान् पिष्टचनकलेपनैः ॥
तन्मुखे चूर्णटंकणं किञ्चित् किञ्चित् प्रलेपयेत्।
धारयेदातपे तीव्रे मुखात् तैलं समाहरेत् ॥

Mouths of ankola seeds, previously separate from their husks, are to be rubbed a little Each o them is then to be kept on a bell-metal pot, anc smeared all round with chanaka grams made into a paste. The mouth of each of these is to be smeared with a paste made of powdered borax (tankana). All of these seeds are then to be placed in the strong heat of the sun. Oil, coming out of the mouths of these seeds, is then to be collected.

शर्माचूर्णं समं पिष्ट्वा छिद्रभाण्डे निवेशयेत्।
छिद्राधः स्थापयेद् भाण्डं छिद्रे केशं च दापयेत् ॥

जलेन सेचयेद् द्रव्यं छिद्राधो ह्यधेच्च तम् ।
तन्मध्ये धृतकेशस्य क्षिपेदूर्द्ध्वं पुटं शनैः ।
ततःक्षणाद् द्रवरूपं च केशतैलं बहिर्भवेत् ॥

Powdered seeds of shami are to be pestled very finely and kept inside a pot having a hole at its bottom. This pot is to be put upon another pot The hole in the upper pot is to be stopped by means of hair. Some water is to be poured into the upper pot (The lower part and that part of the upper pot which contains the hair are to be kept in a pit made in the ground) A fire is to be made covering the upper pot with the result that water will fall, first of all, into the lower pot, followed by oil, (This is only a kind of Patala Jantram)

दशमोऽध्यायः ।

अथ सन्धानवर्गः ।

सन्धानं त्रिविधं ज्ञेयं प्रथमं मदिरान्वितम् ।
द्वितीयं मदिराहीनं भेषजं च निगद्यते ॥
चिरस्थायि भवेद् द्वयं कालेन गुणवत्तरम् ।
दिरं तृतीयं तत् स्वल्पकाले विनश्यति ।
तदपि युज्यते गदे गौणतः पीयतेऽपि च ॥

CHAPTER X

Sandhanas are of three differnt kinds, viz (1) alcoholic, (2) non-alcoholic but fermented drugs, such as asavas, aristas, etc, and (3) non-alcoholic but fermented drinks, sometimes used as ingredients of medicines (such as kanji).

Of these, the first two are practically everlasting, and increase in quality every day, whereas the third does not last for a very long time

(१) मदिरं सन्धानम् ( ) ।

मद्यं बहुविधं प्रोक्तं तन्नाम मदिरा सुरा ।
इरा च रणं तत्त्वं महानन्दा च माणिका ॥

अमृता माधवी मदनी मोदिनी मधु ।
दित्यपत्यप्रिया चैव मिनी कपिशी तथा ॥
सुरा बहुविधा ज्ञेया तत्राष्ट प्रथिता भुवि ।
गौड़ी माध्वी तथा पैष्टी कादम्बरी च वारुणी ।
माधूकी चैव मैरेयी मार्द्वीकेति सुराष्टकम् ॥
विभेदेन सुरा हि द्विविधा मता ।
तेजोयन्त्रादि * योगेन प संजायते हि सा ॥

(1) *Alcoholic Liquors* (*wine*)

Wine is of various kinds Of these, the following eight are well-known:—(*a*) gouri, (*b*) madhvi, (*c*) paisti, (*d*) kadamvari (*e*) varuni, (*f*) madhuki (*g*) maireyi and (*h*) mardi

Wine may be undistilled as well as distilled. It may be distilled by means of the Tejo-Jantram, Nadika Jantram, Baruni Jantram, and Baka Jantram (see pages 280-85, vol. I).

(क) गौड़ी ।

धातकीगुड़मुख्या गौड़ी मदिरोच्यते ।
तीक्ष्णोष्णा मधुरा गौड़ी वातघ्नी बलपित्तकृत् ।
न्तितृप्तिकरी पथ्या वह्नि प्रदीपनी ॥

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* प्रथमखण्डे २८०—८५ पृष्ठानि द्रष्टव्यानि ।

(a) *Gouri.*

Wine, named gouri (from gurh—molasses), is prepared mainly from dhataki flower and gurh. It is acrid, warm, sweet, pacifier of vayu, increaser of strength, pittam, and brightness of complexion It is agreeable to taste, nutritious, and increaser of power of digestion and sexual desire.

(ख) माध्वी ।

मध्वादिविहिता या तु माध्वी सा मदिरोच्यते ।
नात्युष्णा मधुरा माध्वी पित्तानिलनिसूदनी ।
कामलापाण्डुगुल्मार्शःप्रमेहप्लीहघातिनी ॥

(b) *Madhvi*

It is made of honey, and other ingredients. It is not very warm It is sweet, and destroyer of pittam, vayu, jaundice, anemia, gulma, piles, gonorrhœa, and enlargement of the spleen.

(ग) पैष्टी ।

। बहुविधैर्धान्यैः पैष्टीति मदिरोच्यते ।
कफवातहृत् तीक्ष्णा गौड़ीसमा च ॥

(c) *Paisti.*

It is made of paddy of various kinds. It is pungent, sour, destroyer of vayu and kapha, and acrid like gouri.

(घ) कादम्बरी।

कादम्बरीति विख्याता नानाद्रव्यकदम्बजा।*
कादम्बरी मधुरा च श्रमपित्तप्रणाशिनी॥

(d) *Kadamvari.*

Kadambari is prepared from kadamba fruits and many other materials It is sweet and remover of fatigue and pittam

(ङ) वारुणी।

रसः खर्जूरतालयोः संहितो वारुणी मतः।
तद्रससंधिता सुरा वारुणी चापि कथ्यते॥

(e) *Varuni.*

It is the fermented juice of date tree and palm tree. Liquor, prepared from other materials with the help of the said juice, is also called varuni.

(च) माधूकी।

मधूकपुष्पजाता या माधूकी सा निगद्यते।
माधूकी मादिनी बल्या पुष्टिदा तु मदर्द्धिनी॥

(f) *Madhuki.*

It is made of madhuka (mahua) flowers, and is intoxicating, strengthening, nutritious, and increaser of sexual desire.

* कदम्ब इति कदम्बफलं देवदालीलता वा। कदम्बार्थे बहुद्रव्यानां (पित्तनाशकानामत्र) समुदाय इत्यपि :।

(छ) मैरेयी ।

मालूरमूलकं चैव बदरी शर्करा तथा ।
एषामेकत्र सन्धानान् मैरेयी मदिरा मता ॥
मैरेयी वातहृद् बल्या ज्वरघ्नी वह्निदीपनी ॥

(g) *Maireyi*

It is a liquor prepared by the fermentation of vilba roots, plum fruits, and sugar. It pacifies vayu, cures fever, and increases strength and hunger.

(ज) मार्द्वीकम् ।

मृद्वीकाभिः कृतं मद्यं मार्द्वीकमिति कथ्यते ।
मार्द्वीकमविदाहित्वान् मधुरान्वयतस्तथा ॥
रक्तपित्तेऽपि तं बुधैर्न प्रतिषिध्यते ।
लघुपाकि सरं तच्च विषमज्वरशोषहृत् ॥

(h) *Mardwika.*

It is wine prepared from grapes It does not give rise to heat, acidity, and indigestion in the system It is sweet

There is no objection, therefore, to its being prescribed even in cases of hemorrhage (which is due to an excess of pittam or heat and vayu causing contraction of the nerves, arteries, etc.) It is light in digestion, laxative, and efficacious in visama jwara (Malaria, kala-zar, etc).

सुरामण्डादि ।

राम　：प्र　। स्यात्　：कदम्बजा घना ।
तद्धो जगलो ज्ञेयो मेदको जग　द्　：।
गो * हृतसारः स्यात् सुराबीजं च वि　कम् ॥

Different parts of undistilled wine

The upper part of the scum of wine is called prasanna. Kadamvaja is denser than that That part of the wine which is denser than kadamvaja is called jagala. Medaka is denser than jagala. In other words, Medaka is the densest part of the wine before it is filtered or distilled The wine from which all its essence has been taken out (by distillation) is called bakkasa, or the seed of wine, or kinvaka.

सामान्येन　　स्वभावाः ।

नवमभिष्यन्दि त्रिदोषजननं सरम् ।
अहृद्यं बृंहणं दाहि दुर्गन्धं विशदं गुरु ॥
जीर्णं तदेव रोचिष्णु क्रिमिश्लेष्मानिलापहम् ।
हृद्यं सुगन्धि गुणवत् लघु स्रोतोविशोधनम् ॥
विविधगुणमण्डितमपि　　परित्यजेत् ।
दोषास्तस्यातिशेरते गुणान् सर्वान् न सन्देहः ॥
भेषजार्थे सुरापानं क्वचित् क्वचिद् विधीयते ।
ग्रहणादानपानेषु　ऽन्यथा नैव युज्यते ॥

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*　इति भाषा ।

Properties of wine in general.

New wine causes the discharge of phlegm (through the nostrils, the eyes, etc) It increases the three doshas and is laxative It is harmful to the heart, nutritious, and causing inflammation in the system

It has bad smell, is clear, and heavy. Old wine is increaser of appetite ; and destroyer of worms, phlegm, and vayu. It is agreeable to taste and yields a good odour It is wholesome, light in digestion, and purifier of the internal passages.

In spite of the various merits attending wine, it is to be avoided altogether. Its demerits predominate over its merits. Wine is sometimes prescribed by way of medicine, but otherwise, it is unworthy of drinking, receiving from others, and being given to others.

(२) अमदिरं सन्धानम् ।

सन्धानं मदिराहीनं ब विधं प्रचक्षते ।
तेषां हि द्वादशं बहुविदितं धरणीतले ॥
आसवारिष्टसीधवः शुक्त न्या काञ्जिकम् ।
गुड़शुक्तं तथा चुक्रं तुषाम्बु यवनिर्मितम् ।
सौवीरमारनालं च शिण्डाकी भेषजोचितम् ॥

(2) *Non-alcoholic but fermented Liquids*

Fermented but non-alcoholic liquids are of various kinds. Of these, the following thirteen are well-known —(a) asava, (b) arista, (c) sidhu, (d) shukta,

(e) gura-shukta, (f) chukra, (g) tushamboo, (h) dhanyamla, (i) kanji, (j) sauvira, (k) aranala, and (l) shindaki.

All of these are used as ingredients of medicine.

(क) स्तथा (ख) अरिष्टः ।

द्रवेषु चिरकालस्थं द्रव्यं यत् संहितं भवेत् ।
आसवारिष्टभेदैस्तत् प्रोच्यते भेषजोचितम् ॥
यदपक्वौषधाम्बुभ्यां सुसंहितं स आसवः ।
अरिष्टः हितं तयोर्मानं गोन्मितम् ॥

(a) *Asava and* (b) *Arista.*

Asava is a fermented liquid prepared from several drugs immersed for a sufficiently long time in water, which does not require any heating and boiling.

Arista is also a fermented liquid, prepared from several drugs, immersed, for a sufficiently long time, in decoction of prescribed drugs

The dose of both of these is one pala or four tolas (to be taken twice a day)

(The difference between arista and asava is that the former is to be fermented in a decoction of drugs prescribed differently in different cases, whereas the latter is a fermentation in cold water of drugs, prescribed differently in different cases Both asavas and aristas form a class of important medicines)

अरिष्टेषु द्रव्याणां परिमाणम् ।

अनुक्तमित्यरिष्टेषु द्रवाद् द्रोणं तुलागुड़म् ॥
क्षौद्रं क्षिपेद् गुड़ादर्द्धं प्रक्षेप्यं दशमांशिकम् ॥

Proportion of materials in an Arista.

Where there is no specific mention of the quantities of the materials to be used in a certain arista, they are to be taken as follows —The quantity of the decoction (of the materials to be mentioned in each case) is one drona (16 prasthas or 16 × 64 tolas); that of gurh is four hundred tolas (or $6\frac{1}{2}$ prasthas), and of honey 200 tolas (or $3\frac{1}{8}$ prasthas); and that of the materials to be kept immersed is one tenth of the gurh (molasses)

(ग) सीधुः ।

स्थापयेद् मृद्घटे नवे कश्चिन् मि वं सुधीः ।
मुखं तस्य पिधातव्यं शरावेण तः ॥
स्थापयेदातपे तत् तु यावत् तन् नैति संहितिम् ।
सार्यं शरावं तु द्रोण्युत्थितं मलं ॥
मोचयेदन्तरान्तरा पुनर्मुखं च रोधयेत् ।
अनेन संहितं सम्यक् सीध्विति कथ्यते जनैः ॥
सीधु हिं द्विविधो ज्ञेयः पक्वश्चापक्व एव च ।
पक्वमिष्टद्रवाज्ज तः सीधुपक्वो हि कथ्यते ।
अपक्वमधुरद्रवाज् तश्च शीत एव हि ॥

(c) *Sidhu (a kind of vinegar)*

Keep some sweet liquid in a new earthen vessel, covered with an earthen basin Place the vessel in the sun every day, till the liquid gets fermented Take out, every now and then, the dirty scum collected on the surface of the liquid, and then close the mouth of the vessel, as before When sufficiently fermented in this way, (i,e, when there will be no more scum gathered on the surface of the liquid), the liquid will be called Sidhu

Sidhu is of two kinds, viz boiled and unboiled. That which is prepared by fermenting a boiled liquid of sweet taste is called "pakva" or boiled sidhu; and that which is prepared from unboiled liquid of sweet taste is called "apakva" or unboiled sidhu

(घ) शुक्तम् । *

(२य खण्डे २६ पृष्ठे पादटीका द्रष्टव्या) ।

(d) *Suktam**

(See foot note, page 28, vol II)

(ङ) धान्याम्लम् (तुषाम्लम्) ।

थं षष्टिकः न्यस्य नीरप्रस्थद्वये क्षिपेत् ।
आधारभाण्डं संरुध्य भूमेर्गर्भे निधापयेत् ॥
पक्षान्ते समुद्धृत्य वस्त्रपूतं च कारयेत् ।
धान्याम्लं कथितं तु तुषाम्लं च तदेव हि ॥

...न्याम्लं शालिचूर्णाच्च कोद्रवादेश्च रयेत्।
धान्याम्लं धान्ययोनित्वात् प्रीणनं लघु दीपनम्।
अरुचौ वातरोगेषु हितमास्थापने च तत्॥

(e) *Dhanyamla.*

One prastha (64 tolas) of shasti paddy is to be thrown into two prasthas of water, contained in an earthen (or made of chinese clay) vessel, which is to be kept underground with its mouth closed This is to be taken out after a fortnight, and the liquid is to be filtered This is called dhanyamla or tushamla

Dhanyamla may also be prepared from powders of such paddies as shali and kodrava. It is agreeable to taste, light for digestion, and increaser of hunger. It is beneficial in aversion for food, and diseases due to vayu, and commendable for the purpose of being used for douche

(च) काञ्जिकम्।

तुलामितं षष्टिकतण्डुल
प्रगृह्य चान्नं विधिवद् विधाय।
द्रोणेऽम्भसि च्चि थ त्
स्साहकालं पिहितं हि रक्षेत्॥
ततस्तु कल्कं स ं निरस्येत्
तत् ञ्जि तीक्ष्णं लघु पाचनं च।
दाहज्वरघ्नं कफ... शि
रेकी च रुच्यं तथा दीपनं हि॥

विबन्धशूलानलनाशकृत् तत्
कुल्माष * योगादपि ञ्जि कार्यम्।
अनन्तरोक्तविधिपूर्वकं हि
लिः † प्रदेयः खलु ञ्चभावे॥

(f) *Kanji*

One tula (400 tolas) in weight of the rice of shasti paddy, duly prepared, is to be immersed in one drona (16 prasthas or 16 × 64 tolas) of water, for seven days, in a vessel closed all the while. The water is then to be filtered It is called kanji

It is strong, light, digestive, curer of fever with inflammation, and excess of kapha and vayu, laxative, increaser of liking for food and of appetite, and curer of constipation, colic, and loss of power to digest

Kanji may also be prepared in the same way from boiled wheat or chanaka, etc

Jali (water turned sour by boiled rice being immersed in it constantly for a few days) may be used, in lieu of kanji, where the latter is not available.

(छ) गुड़शुक्तम्।

कन्दमूलफलादिभिः सस्नेहलवणाम्बुभिः।
गुड़ं यत्राभिषूयन्ते गुड़शुक्तं तदेव हि।
एवमेवेक्षुशुक्तं स्याद् मृद्वी संभवं तथा॥

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* कुल्माष इति अर्द्धस्विन्ना गोधूमाश्चनकादयः।

† जालिरिति नियतान्नमज्जनजनितमम्लीभूतं जलम्। आमानीति भाषा।

(g) *Gura-shuktam.*

It is a fermented liquid prepared from water, gurh (molasses), certain tubers, roots, fruits, oil, salt, etc

Such drinks may also be prepared from the juice of sugar-cane, as well as from the juice of grapes, substituted for gurh

(ज) चुक्रम् ।

विनाशमम्लतां यातं ॰ वा मधुरद्रवः ।
विनष्टः सन्धितो यस्तु तच्चुक्रमभिधीयते ॥

(h) *Chukram*

Wine, spoiled and grown sour, as well as swee liquid, fermented, is called chukram

(झ) तुषाम्बु च (ञ) सौवीरं च ।

तुषाम्बु संहितं ज्ञे ॰विदलितैयवैः ।
॰स्तु निस्तुषैः ॰ः सौवीरं संहितं भवेत् ॥

(i) *Tushambu and* (j) *Sauvira.*

Tushambu is a liquid, prepared from powder unhusked, and unboiled barley, fermented with wa only, whereas sauvira is a liquid, prepared fr powdered, husked, and boiled barley, fermented w water only.

(ट) आरनालम् ।

आरनालं तु गोधुमैरामैः स्यान्निस्तुषीकृतैः ।
पक्वैर्वा संहितैस्तत्तु सौवीरसदृशं गुणैः ॥

(k) *Aranala.*

It is a liquid, prepared from powdered and husked wheat, boiled or unboiled, and fermented with water only.

It has the same properties as sauvira.

(ठ) शिण्डाकी ।

शिण्डाकी संहिता ज्ञेया मूलकैः सर्षपादिभिः ॥

(l) *Shindaki.*

It is water fermented with mulaka (raddish), mustard seeds, etc.

एकादशोऽध्यायः ।

अथ परिभाषा ।

शुल्वनागः ।

माक्षिकेण हतं ˙ दशवारं समुत्थितम् ।
तद्वद् विशुद्धनागं हि द्वितयं तच्च ऽ म् ॥
नीलाञ्जनहतं भूयः सप्तवारं समुत्थितम् ।
इति संशुद्धमेतद्धि शुल्वनागं प्रकीर्त्त्यते ॥
साधितस्तेन सूतेन्द्रो वदने विधृतो नृणाम् ।
निहन्ति स त्रेण मेहव्यूहं विशेषतः ॥
पथ्यान्नस्य वर्षेण पति ˙ बलिभिः सह ।
गृध्रदृष्टिर्लस पुष्टिः सर्वारोग्य न्वितः ॥

CHAPTER XI.

Paribhasa (Definitions.)

sulva-naga.

Copper is to be killed with makshika (pyrites) f ten times and revived each time. Pure lead is a to be similarly treated. Two palas each of these t metals are to be taken and combined. This am gam is to be killed with nilanjanam for seven tin

and revived each time. The amalgam, thus purified. is called, "Sulva-naga" (Copper-lead)

Mercury consolidated with this amalgam, and kept in the mouth, cures all sorts of spermatorrhœa and gonorrhœa in one month only Keeping it in the mouth for one year, with the observance of salutary diet, makes a man free from senile decay and all sorts of diseases It improves especially eye-sight and helps all-round development of the body

वरलोहम् ।

ताम्रं तीक्ष्णसमायुक्तं द्रुतं निक्षिप्य भूरिशः ।
सगन्धलकुचद्रावे निर्गतं वरलोहकम् ॥

Vara loha

Copper, combined with an equal quantity of tikshna (steel), is to be melted and immersed, for several times, in a solution of sulphur and the sour juice of a lakucha fruit The amalgam turns, by this process, into an excellent metal.

घोषाकृष्टताम्रम् ।

स्वल्पतालयुतं कांस्यं वंकनालेन ताड़ितम् ।
मुक्तरङ्गं हि तत्त ं घोषाकृष्टमुदाहृतम् ॥

Copper extracted from Bell-metal

Bell-metal, mixed with a little haritala, is to be subjected to fire blown by a blow pipe The tin will, in this way, be burnt away, leaving only the

copper This copper is ghosa-krısta (i e. extracted from bell-metal)

वरनागम् ।

तीक्ष्णं नीलाञ्जनोपेतं ध्मातं हि बहुशो दृढम् ।
मृदु कृष्णं द्रुतद्रावं वर गं तदुच्यते ॥

Bara-naga (Excellent Lead).

Tıkshna iron, mixed wıth nılanjana (see page 202, vol II), and heated for several tımes, becomes soft, black, and quıckly liquefiable This ıs called bara-naga (excellent lead).

पतङ्गिरागश्चुल्लकरागश्च ।

पतङ्गिकल्कतो * जाता लोहे तारत्वहेमता ।
दिनानि कतिचित् स्थित्वा यातासौ चुल्ल म ॥
रञ्जिताद्धि चिरं लोहाद् ध्माताद् चिर : ।
विनिर्यासः † स निर्दिष्टः पतङ्गिरागसंज्ञकः ॥

Patangı-raga and chullaka-raga

The colour of gold whıch base metals may assum for a short time, by a mercurıal preparation bein thrown ınto it, when melted, ıs called "chullaka

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* पतङ्गिकल्क इति पतङ्ग पारदः अस्यास्तीति पतङ्गी तस्य : साधितद्रव्यम् ।

† विनिर्यास इति बहिर : ।

colour, whereas the colour of a base metal, permanently transformed into gold or silver is called patangi-raga

आवापः ।

द्रुते द्रव्यान्तरक्षेपो लोहादौ क्रियते हि यः ।
स पः प्रतीवापस्तदेवाच्छादनं मतम् ॥

Abapa

The act of throwing something into a liquefied metal is called "abapa", 'pratibapa", or "achchadana"

अभिषेकश्च निर्वापश्च ।

द्रुते वह्निस्थिते लौहे विरम्याष्टनिमेषकम् ।
सलिलस्य परिक्षेपः सोऽभिषेक इति स्मृतः ।
तप्तस्याप्सु विक्षेपो निर्वापः स्नपनं च तत् ॥

Abhisheka and nirbapa

Abhisheka the act of sprinkling water upon liquefied metal, a few seconds after it is got down from the furnace.

Nirbapa or snapanam is the act of immersing hot metal immediately from fire into water.

शुद्धावर्त्तबीजावर्त्तौ ।

य हुताशो दीप्तार्चिः शुक्लोत्थानसमन्वितः ।
आवर्त्तस्तदा लोहः स क : सत्त्वनिर्गमे ॥

द्राव्यद्रव्यनिभा ज्वाला दृश्यते धमने यदा ।
द्रावस्योन्मुखता यत्र बीजावर्त्तः स लोहकः ॥
प्रतिवापादिकं कार्यं शुद्धावर्त्ते द्रुते लोहे ॥

Suddhavarta and Vijavarta

Suddhavarta is tha condition of a metal which is so heated by a strong fire that the latter emits white flames. That is the time of essence coming out of the metal

Vijavarta is that condition of a metal, which, while heated with the object of being melted, makes the fire emit flames of the color of the metal itself, which shows a heaving tendency at the time.

It is only on a melted and suddhavarta metal that an ābapā is to be resorted to

स्वाङ्गशीतलं बहिःशीतलं च

वह्निस्थमेव शीतं यत् तदुक्तं स्वाङ्गशीतलम् ।
वह्नेराकृष्य शीतं यत् तद् बहिः शीतलं स्मृतम् ॥

Swanga-shitala and Bahis-shitala

A heated substance is called swanga shitala when it is cooled of itself without being removed from the oven.

A heated substance is called bahis-shitala, when it is cooled after removal from the fire place.

अथ रससिद्धाः ।

नन्दिराजस्तथा शुक्राचार्यश्च वसुधागुरुः ।
दिमश्चन्द्रसेनश्च लङ्केशस्तस्य घातकः ॥
कपाली मत्तमाण्डव्यौ भास्करः शूरसेनकः ।
रत्नकोशश्च शम्भुश्च सात्त्विको नरवाहनः ॥
इन्द्रदो गोमुखश्चैव कम्बलिर्व्याडिरेव च ।
ब्रह्मज्योतिर्मुनिश्रेष्ठः दण्डी च सोमदेवकः ॥
नागार्जुनः सुरानन्दो नागबोधिर्यशोधरः ।
खण्डः कापालिको ब्रह्मा गोविन्दो लम्बको हरिः ॥
मन्थानभैरवश्चैव नित्यनाथश्च वाग्भटः ।
अनन्तदेवसूरिश्च भूदेवो भुवि विश्रुतः ॥
लुप्तप्रायरसज्ञानोद्धारकोऽमृतपाणिकः ।
रसजलनिधिर्येन रच्यतेऽयं सुधानिधिः ।
सन्तरणाय सूरीणां वैद्यनाथप्रसादतः ॥
सप्तत्रिंशदिमे सर्वे रससिद्धाः प्रकीर्त्तिताः ॥

Names of well-known chemists

Of the innumerable chemists, most of whom have passed into oblivion, the names of the following are still remembered —(1) king Nandi, (2) Shukra, the sage, (3) Adima, (4) Chandra sena (5) Ravana (king of Lanka), (6) king Rama-Chandra of Ajodhya (7)

Kapali (8) Matta, (9) Mandavya, (10) Bhaskara, (11) Sura-sena, (12) Ratna-kosha, (13) Shambhu, (14) Satwika, (15) Nara-bahana, (16) Indrada, (17) Gomukha, (18) Kambali, (19) Vyari, (20) Brahma-jyoti, (21) Dandi, (22) Soma deva, (23) Nagarjuna, (24) Surananda, (25) Nagabodhi, (26) Jasodhara, (27) Khanda, (28) Kapalika, (29) Brahma, (30) Govinda, (31) Lambaka, (32) Hari, (33) Manthana-Bhairava, (34) Nityanatha, (35) Bagbhata, (36) Ananta deva, and (37) Bhudeva (the author)

त्वद्दत्तद्रव्यसंभारस्तदंघ्रावर्पितो मया ।
त्वदिच्छाचालितस्य मे ममत्वं क महेश्वरि ॥

इति सिद्धवैद्यश्रीभूदेवदेवशर्मविरचितरसजलनिधिनाम-
महाग्रन्थस्य तृतीयखण्डं समाप्तम् ।

RASA JALA-NIDHI

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(Ayurvedic Physician)

Of 41-A, Grey Street Calcutta

OPINIONS

(1)

Albert G Ingalls, Associate Editor, "Scientific American"—

I have to thank you for a most interesting evening devoted to the study, admittedly somewhat superficial, of volumes I and II of your work on Indian Chemistry and Alchemy. Western science has taken a somewhat different direction from this, and to me, therefore, your detailed account of the alchemical and healing arts was most fascinating

These books have been given a special place in the library of the journal, reserved for works which are eminently worthy of preservation, for the edification of future editors.

(2)

Prof M. Winternitz of the Prague University (Czecho Slovakia) —

I am much obliged to you for kindly sending me

volumes I and II of your work, Rasa-jala-nidhi It is an interesting contribution to our knowledge of Hindu Chemistry, alchemy, and medicine

(3)

Prof Berthold Laufer of the Field Museum of Natural History, Chicago —

It is very kind of you to send me volumes I and II of your work on Indian Chemistry, a subject in which I have always been interested I wish to thank you cordially for giving me this opportunity I think it will be very useful to have a complete compendium of this important subject, such as you propose I shall look forward with great interest to the continuation of your work

(4)

The Chemical News of London, dated the 16th September 1927.—

It is becoming apparent that there is a revival of scientific interest in Alchemy. Two new and important contributions have appeared in India, and merit attention. The first is a bound volume by Dr Bhudeb Mookerji M A, entitled Rasa-jala-nidhi or Ocean of Indian Chemistry and Alchemy, and is the first of a series to be edited by him.

Hindu Chemistry and Alchemy is a subject almost unknown and our indebtedness to the Indians' early contributions to the development of science was briefly dismissed in the Brief Outline of the History of Science (by Dr Gerald Druce). *We are therefore especially grateful to Dr Bhudeb Mookerji for his compilation...* Details are given for the preparation of mercury for use in medicine and *for transmuting itself or base metals into gold*, etc. The billingual text is accompanied by a glossary and definitions and is preceded by a valuable introduction. Of both works under review it may be said that further publications will be awaited with

(5)

Chemical News of London, dated 13-1-28 —

Dr Bhudeb Mookerji has undertaken the heavy task of compiling in about 10 volumes, a systematic and comprehensive treatise on the almost lost and little known science of Hindu Chemistry His first volume was well received, and the second part has quickly followed it Succeeding volumes will be awaited with impatience. Dr Bhudeb Mookerji's second volume maintains the high standard of his first, and is a valuable contribution to alchemical literature

(6)

Journal of the Society of Chemical Industry (London), May 18, 1928 —

Any chemist who is (*a*) dissatisfied with his family doctor, or (*b*) tired of ions, pH, enzimes and covalencies, may be recommended to read this book, where he will at least find much that is novel We fancy that most of his recipes will be new to the Society of Chemical Industry This and much other remarkable and unexpected knowledge came to Mr Mookerji partly from ancient books and partly from a learned yogi with whom he studied Alchemy finds its place among the iatro chemical remedies We look forward with ill-controlled excitement to the publication of Mr Mukerji's chemical investigations, but, in the meantime, there can be no doubt of the efficacy of his remedies .

Chemists will certainly get their money's worth if they buy this book

E J HOLMYARD.

(7)

Sir Jagadish Chandra Bose —

Please accept my sincere thanks for a copy of Rasa-jala-nidhi which I am looking forward to reading with great interest. Of course, in Chemical Science, you should interest modern chemists in the achievement of Hindu Chemistry in the past.

(8)

Sir C H Setalvad, Vice-chancellor, Bombay University —

It is indeed very creditable to you to have carried on your researches in Indian Chemistry and publish the results in such comprehensive form. The publication is sure to attract the attention of all those who are interested in making available to the public the past achievement in the field of science by India I will certainly ask the syndicate of the university to give such encouragement to your work as they may think proper

(9)

Dr. H K Sen, M A D Sc. Professor and Head of the Department of Applied Chemistry, University College of Science and Technology, Calcutta —

I think you very much for the very attractive copy of your Rasa-jala-nidhi, Vol I I enjoyed the reading of the whole volume you have been able to make the treatise extremely interesting. The work indicates erudition and the requisite patience of a scholar I am really looking forward to your subsequent volumes, which I hope will come out in rapid succession and justify the excellent promise given in the first volume

(10)

Prof Arthur B. Lamb, Director, Chemical Laboratory of Harvard College, Cambridge, U S A ·—

I have examined the book with interest and thank you for it

(11)

Prof L M. Dennis, Head of the Department of Chemistry, Cornell University, U S A.—

I looked through the book with much interest

(12)

Prof. H. Nagaoka of the Institute of Physical and Chemical Research Tokyo —

You were so kind as to send me your interesting book

(5)

"Ocean of Indian Chemistry and Alchemy," which I read with much interest I am at present engaged with electric experiments in the same domain of research .I hope to obtain sufficiently large quantity of gold from mercury

I have placed your book in the library of the Institute so that it will be consulted by those interested with the subject There is an old Chinese treatise on similar subject I believe that it originated from India

(13)

"Englishman," Calcutta, May 30, 1927

The work is an ambitious undertaking and is expected to be completed in 10 volumes The book claims to be a comprehensive treatise on Indian Chemistry and alchemy, an art almost lost several centuries It contains much interesting matter which deserves testing under modern laboratory methods The author describes several processes, by which he maintains, it is possible to make mercury swallow, without any appreciable increase in its weight much of gold and other materials Another equally interesting topic he has dealt with is the transformation of base metals into gold In view of the scientific attention that has been devoted to this subject, there is no reason why the formulæ, as given out in this work, should not be given a fair trial These instances, taken at random, are fair samples of the startling and important nature of the contents The processes have been described in detail and the author himself has given his agreement with them from the result of his own research. The first instalment from the pen of this author is promising He deserves the thanks of all orientalists and Indian chemists for rescuing a science that was in great danger of being lost altogether The work is heartily recommended to the attention of those interested in Indian Chemistry

(14)

" Bharatvarsha " the leading Bengali magazine of Calcutta —

(6)

The work, when completed, will no doubt prove to b the greatest and the most comprehensive treatise on Hindu Chemistry and alchemy. The anthor is an eminent and successful physician, and most probably he has been able to earn a high reputation by prescribing the medicines described in the book under review. Physicians in general, we are sure, will be profited by a study of the book

(15)

Journal of Ayurveda, Calcutta, March 1928 —

These volumes are quite welcome, compiled, as they a from various works on Rasa-vidya from the age of Ram chandra up to the present time

Preparation of mineral acids (and other chemical m dicine) was known in India, according to the author, early as the age of Ravana, and not introduced by t Portugeese as suggested by Dr. P C Roy

The treatment has been thorough and practical and quite legible to all

The volumes are worth reading as the author introd ces many a new information in them He had to stu many ancient and new works in a scholarly way bef writing the volumes under review As he did not begin an amateur, his work is bound to be reliable and useful.

The method of arrangement is very good—the origi Sanskrit text has been given first, followed by Engl reading Besides compiling, the author had to write himself portions of sanskrit texts whenever he found so thing wanting or lost, and this reflects a great credit the author's profound scholarship

The printing, paper, binding, and get up are all t could be desired.—We recommend these volumes to lovers of Ayurveda, as the treatise may be said to h introduced a new era in the revival of Ayurveda. anxiously await the publication of the remaining volur

——0——

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Kaviraj Bhudeb Mookerji, M.A., (triple), Rasacharya,
41/A, Grey Street, Calcutta.

OPINIONS.

(1) Hon'ble Mr. Justice Manmatha Nath Mookerji of the Calcutta High Court :—

I have gone through your "Indian Civilization and its Antiquity" with pleasure, and, if I may be permitted to say, with immense profit to myself. The book embodies in a short compass much that is not known and much more that is often unnoticed. It is the product of your valuable and original research on a subject which is very close to the heart of every Indian and every lover of India, and to me it has been well worth a perusal.

(2) DR. W. S. URQUHART, Vice-Chancellor, Calcutta University :—

I have read part of it with great pleasure and I am looking forward to study it more thoroughly.

(3) Mahamahopadhaya DR. GANGANATH JHA, Vice-Chancellor, Allahabad University :—

I am sure it will be useful. It shows signs of much study, thought, and labour.

(4) Doctor Sudhindra Bose M.A. Ph. D. Professor of Political science, State university, Lowa, U. S. A. :—

You have made a very timely contribution to the problems of Indian civilization, which are pressing themselves upon the attention of the thoughtful scholars everywhere. You have shown the way the scientist should approach the study of Indian culture. I hope your volumes will have large circulation and make their influence felt widely.

(5) The Tribune, October 7, 1928, Lahore :—

Mr. Mookerji's book seeks to establish by historical and philological research the antiquity of Indian civilisation

at a much earlier period than is conceded by most of the western schol[illegible] Mr. Mookerji himself is a great scholar; his treatise on Hindu Chemistry (of which only two out of the ten volumes are yet out) created a great stir on the occasion of its publication.

The chapter on Phallism may very properly be sent to Miss Mayo as a reply to her ignorantly foolish remarks on the worship of the Shiv-ling in India. The most interesting chapters, and from the point of view of a student of philology, the most instructive, are those that deal with Gipsies and the borrowings from Sanskrit into English. They are very carefully and convincingly written.

Mr. Mookerji's book should attract the attention of all those who are interested in making available to the public the past achievements of India in the fields of art and science.

(6) Indian Daily Mail, Bombay, September 30th 1928.

Great scholars, both Indian and European have often come to the conclusion that Indian civilization is a very ancient one, but no one up till now took up the subject exclusively for a thorough and scientific study. We congratulate Dr. Bhudeb Mookerji for having thrown a flood of light on the subject through his book "Indian Civilization and its Antiquity."

Although the book is not very voluminous, yet it contains in a nutshell a good deal of new and useful information. The essays are very interesting and fully prove that Indian civilization is a very ancient one. They give a sufficient evidence of the research done by the author and a clear proof of his independence of the thought. We heartily commend the volume to our readers.

(7) The Vaitarani Cuttack, October, 1928.

This is a very valuable book of research. No mere fragmentary criticism will do justice to the book. It is a book which ought to be read, marked, and digested.

——0——